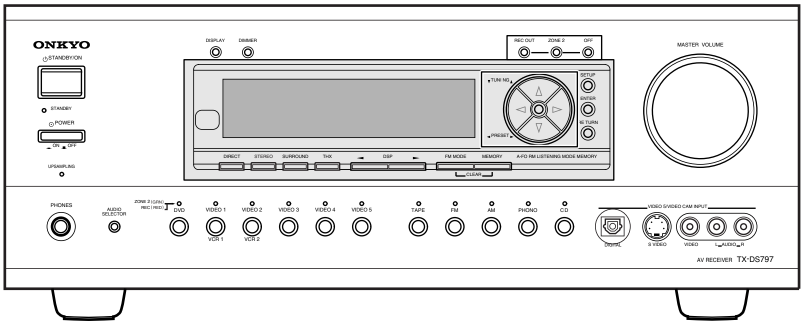
Ref. No. 3714
102001

ONKYO® SERVICE MANUAL

AV RECEIVER
MODEL TX-DS797



Black, Golden and Silver models

BMDD	120V AC, 60Hz
BMPP,SMPP,BMPA,GMPA	230-240V AC, 50Hz
BMWT,GMWT,GMWR	120/220-230V AC, 50/60Hz
GMGT	220-230V AC, 50Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.
MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

ONKYO®
IMAGINATIVE SIGHT & SOUND

SPECIFICATIONS

AMPLIFIER SECTION

Continuous Average Power output (FTC)	
All channels:	**100 watts per channel min. RMS at 8 ohms, 2 channels driven from 20 Hz to 20 kHz with no more than 0.08% total harmonic distortion. 130 watts min. RMS at 6 ohms, 2 channels driven from 1 kHz with no more than 0.1% total harmonic distortion.**
Continuous Power output (DIN)	135 watts at 6 ohms
Maximum Power output (EIAJ)	160 watts at 6 ohms
Dynamic Power Output (Stereo)	2 x 250 watts at 3 ohms 2 x 210 watts at 4 ohms 2 x 130 watts at 8 ohms
Total Harmonic Distortion:	0.08% at rated power 0.08% at 1 Watt output
IM Distortion:	0.08% at rated power 0.08% at 1 Watt output
Damping Factor:	60 at 8 ohms
Input Sensitivity and Impedance	
PHONO:	2.5 mV, 50 kohms
LINE (CD, TAPE, DVD, VIDEO 1-5):	200 mV, 50 kohms
MULTICHANNEL INPUT (FRONT L/C/R, SURROUND L/R, SURROUND BACK L/R):	200 mV, 50 kohms
(SUBWOOFER):	36 mV, 50 kohms
COAXIAL 1, 2, 3 (DIGITAL):	0.5 Vp-p, 75 ohms
DVD, VIDEO 1, 2, 3, 4, 5:	1 Vp-p, 75 ohms 1 Vp-p, 75 ohms (Y) 0.28 Vp-p, 75 ohms (C)
COMPONENT VIDEO 1, 2:	1 Vp-p, 75 ohms (Y) 0.7 Vp-p, 75 ohms (P_B,P_R)
Output Level and Impedance	
Rec out (TAPE, VIDEO 1, 2):	200 mV, 470 ohms
Pre out:	1 V, 470 ohms
ZONE 2 OUT:	100mV, 470 ohms
VIDEO (VIDEO 1, 2, MONITOR OUT, ZONE 2 OUT):	1 Vp-p, 75 ohms 1 Vp-p, 75 ohms (Y) 0.28 p-p, 75 ohms (C)
COMPONENT VIDEO OUT:	1 Vp-p, 75 ohms (Y) 0.7 Vp-p, 75 ohms (P_B,P_R)
Phono Overload:	120 mV RMS at 1 kHz, 0.5% T.H.D.
Frequency Response:	10 Hz to 100 kHz : +1/-3 dB (CD in Direct mode)
RIAA Deviation:	20 Hz to 20 kHz : 0.8 dB
Tone Control	
Bass:	10 dB at 50 Hz
Treble:	10 dB at 20,000 Hz
Signal-to-Noise Ratio (Stereo)	
Phono:	80 dB (IHF A, 5 mV input)
CD/Tape:	110 dB (IHF A, 0.5 V input)

TUNER SECTION

FM

Tuning Range:	87.5— 108.0 MHz (50 kHz steps)
Usable Sensitivity	
Mono:	11.2 dBf, 1.0 u V (75 ohms IHF) 0.9 uV (75 ohms DIN)
Stereo:	17.2 dBf, 2.0 u V (75 ohms IHF) 23u V (75 ohms DIN)
50 dB Quieting Sensitivity	
Mono:	17.2 dBf, 2.0uV (75 ohms)
Stereo:	37.2 dBf, 20uV (75 ohms)
Capture Ratio:	2.0 dB
Image Rejection Ratio	
USA & Canadian models:	40 dB
Other area models:	85 dB
IF Rejection Ratio:	90 dB
Signal-to-Noise Ratio	
Mono:	76 dB
Stereo:	70 dB
Alternate Channel Attenuation:	55 dB
Selectivity:	50 dB (DIN)
AM Suppression Ratio:	50 dB
Total Harmonic Distortion	
Mono:	0.2%
Stereo:	0.3%
Frequency Response:	30 Hz— 15 kHz, 1.0 dB
Stereo Separation:	45 dB at 1 kHz 30 dB at 100 Hz— 10 kHz

AM

Tuning Range	
USA & Canadian models:	530 to 1,710 kHz (10-kHz steps)
European & Australian models:	522 to 1,611 kHz (9-kHz steps)
Worldwide models:	531 to 1,602 kHz (9-kHz steps) 530 to 1,710 kHz (10-kHz steps)
Usable Sensitivity:	30 uV
Image Rejection Ratio:	40 dB
IF Rejection Ratio:	40 dB
Signal-to-Noise Ratio:	40 dB
Total Harmonic Distortion:	0.7%

GENERAL

Power Supply	
USA & Canadian models:	AC 120 V, 60 Hz
European & Australian models:	AC 230-240 V, 50 Hz
Some Asian models:	AC 220-230 V, 50/60 Hz
Worldwide models:	AC 220-230 and 120 V switchable, 50/60 Hz
Power Consumption	
USA & Canadian models:	6.8 A
Other models:	550 W
Dimensions (W x H xD):	435 x175 x459 mm 17-1/8" x 6-7/8" x 18-1/16"
Weight	
USA & Canadian models:	35.9 lbs.
Other models:	17.3 kg

REMOTE CONTROLLER

Transmitter:	Infrared
Signal range:	Approx. 16 ft., 5 meters
Power supply:	Two “AA” batteries (1.5 V x 2)

Specifications and features are subject to change without notice.

SERVICE PROCEDURES

1. Replacing the fuses

This symbol located near the fuses indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating refer to the marking adjacent to the symbol.

Ce symbole indique que le fusible utlise est a rapide. Pour une protection permanente, n'untiliser que fusibles de meme type. Ce darnier est la qu le present symbol est appse.

CIRCUIT NO.	PART NO.	DESCRIPTION
F901	252199	10A-UL/T-314,Fuse <D/WT/GT>
F902	252077,	4A-SE-EAK,
	252243 or	4A-SE-TL250V or
	252277	4A-SE-TL250V,Fuse <P/WT/R/A/GT>
F903	252075,	2.5A-SE-EAK,
	252241 or	2.5A-SE-TL250V or
	252275	2.5A-SE-TL250V,Fuse <P/WT/R/A/GT>
F9501,F9502	252160 or	2.5A-UL/T-237 or
	252254	2.5A-T/UL-ST2,Fuse <D>
	252075,	2.5A-SE-EAK,
	252241 or	2.5A-SE-TL250V or
	252275	2.5A-SE-TL250V,Fuse <P/WT/R/A/GT>
F9503,F9504	252158 or	1.6A-UL/T-237 or
	252252	1.6A-T/UL-ST2,Fuse <D>
	252073 or	1.6A-SE-EAK or
	252239	1.6A-SE-TL250V,Fuse <P/WT/R/A/GT>

Note: <D>:120V model only
<P>: European model only
<WT>: Worldwide model only
<R>: Asian model only for 230V
<GT>: 220V model only
<A>: Australian model only

2. To initialize the unit

This device employs a microprocessor to perform various functions and operations. If interference generated by an external power supply, radio wave, or other electrical source results in accident which causes the specified operations and functions to operate abnormally.
To perform a result, please follow the procedure below.

1.Press and hold down the VIDEO 1 button, then press the STANDBY/ON button.
2.After "clear" is displayed, the preset memory and each mode stored in the memory, such as surround, are initialized and will return to the factory setting.

3. Safety-check out

(Only U.S.A. model)
After correcting the original service problem, perform the following safety check before releasing the set to the customer.
Connect the insulating-resistance tester between the plug of power supply cord and screw on the back panel.
Specifications: 3.3Mohm±10% at 500V.

4. Memory Preservation

This unit does not require memory preservation batteries. A built-in memory power back-up system preserves the contents of the memory during power failures and even when the unit is unplugged. The unit must be plugged in order to charge the back-up system.
The memory preservation period after the unit has been unplugged varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of a few weeks after the last time the unit has been unplugged. This period is shorter when the unit is exposed to a highly humid climate.

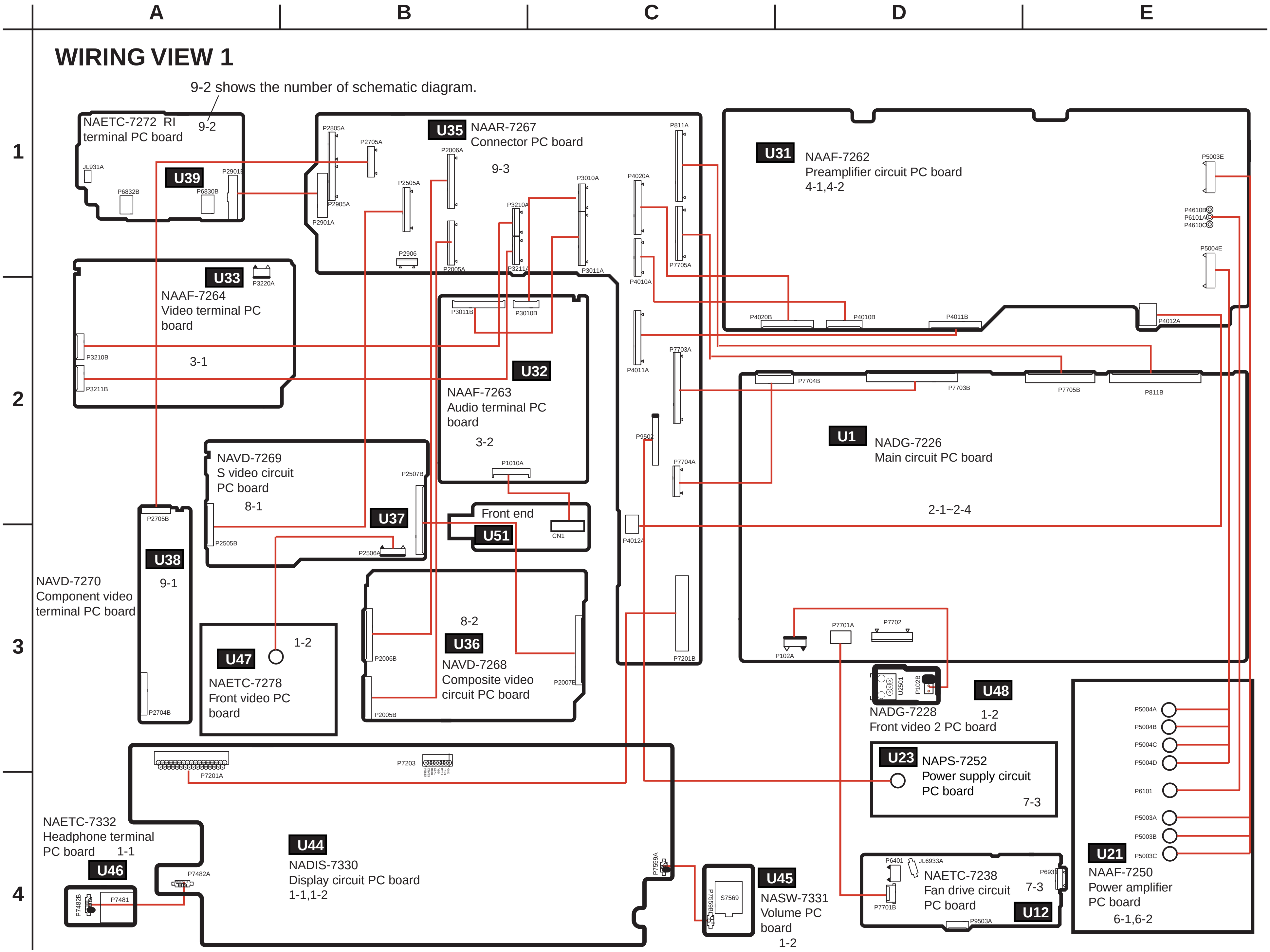
5.Setting the Voltage selector (Worldwide models only)

Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before plugging in the unit.

1. Determine the proper voltage for your area: 220-230V or 120V.
2. If the preset voltage is not correct for your area, insert a screw-driver into the groove in the switch. Slide the switch all the way to the right (120 V) or to the left (220-230 V), which ever is appropriate.

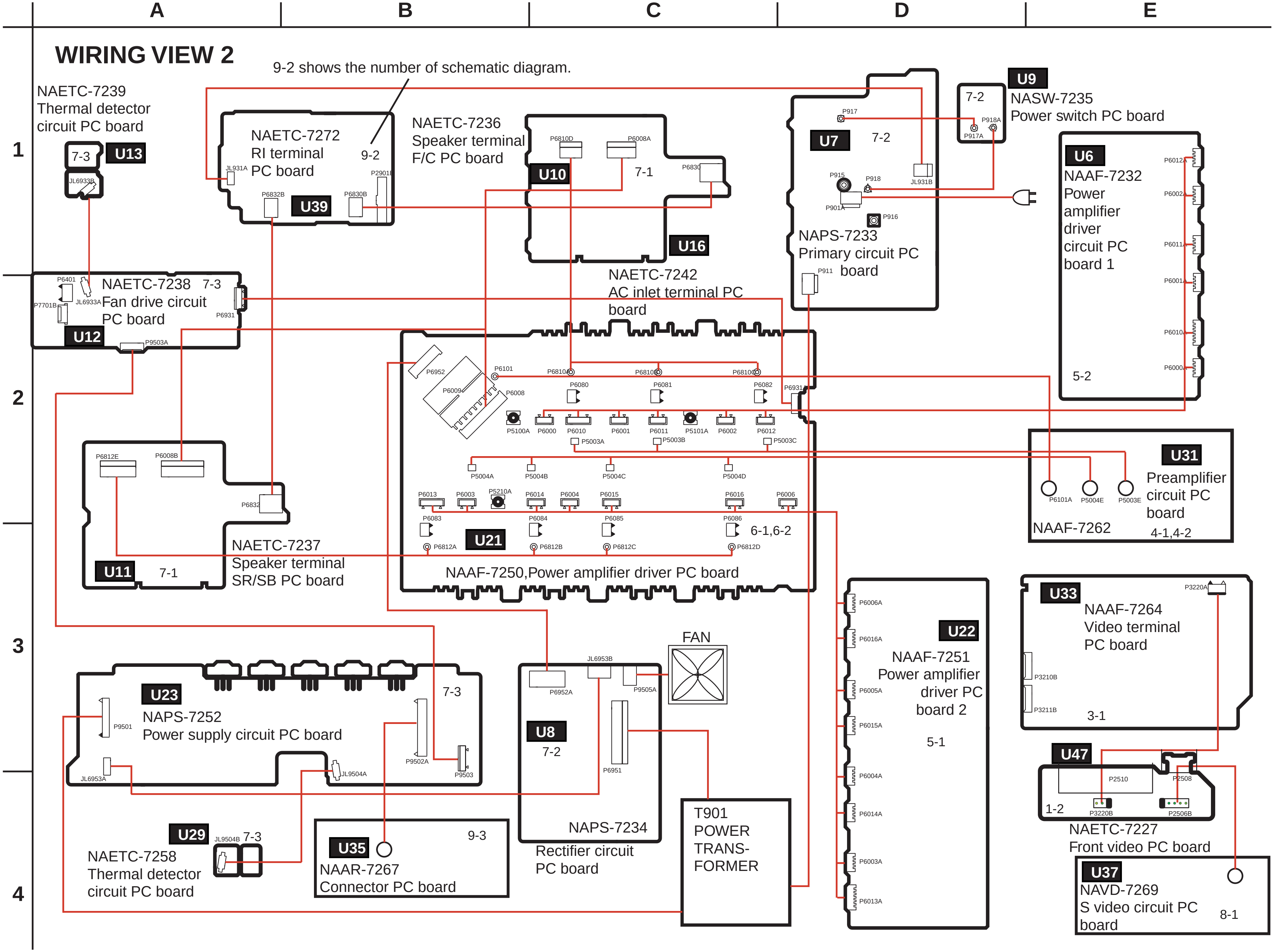
WIRING VIEW 1

9-2 shows the number of schematic diagram.

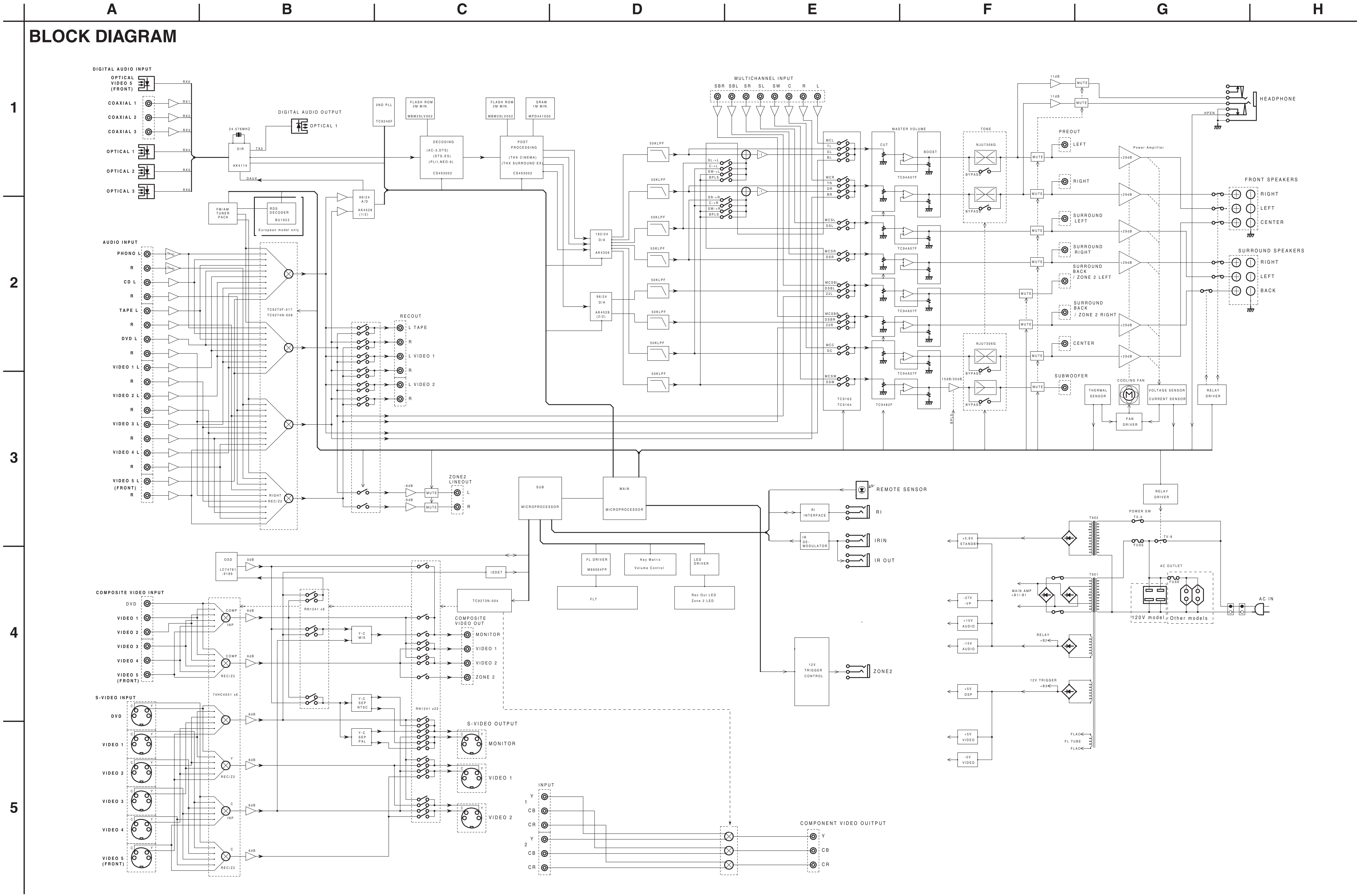


WIRING VIEW 2

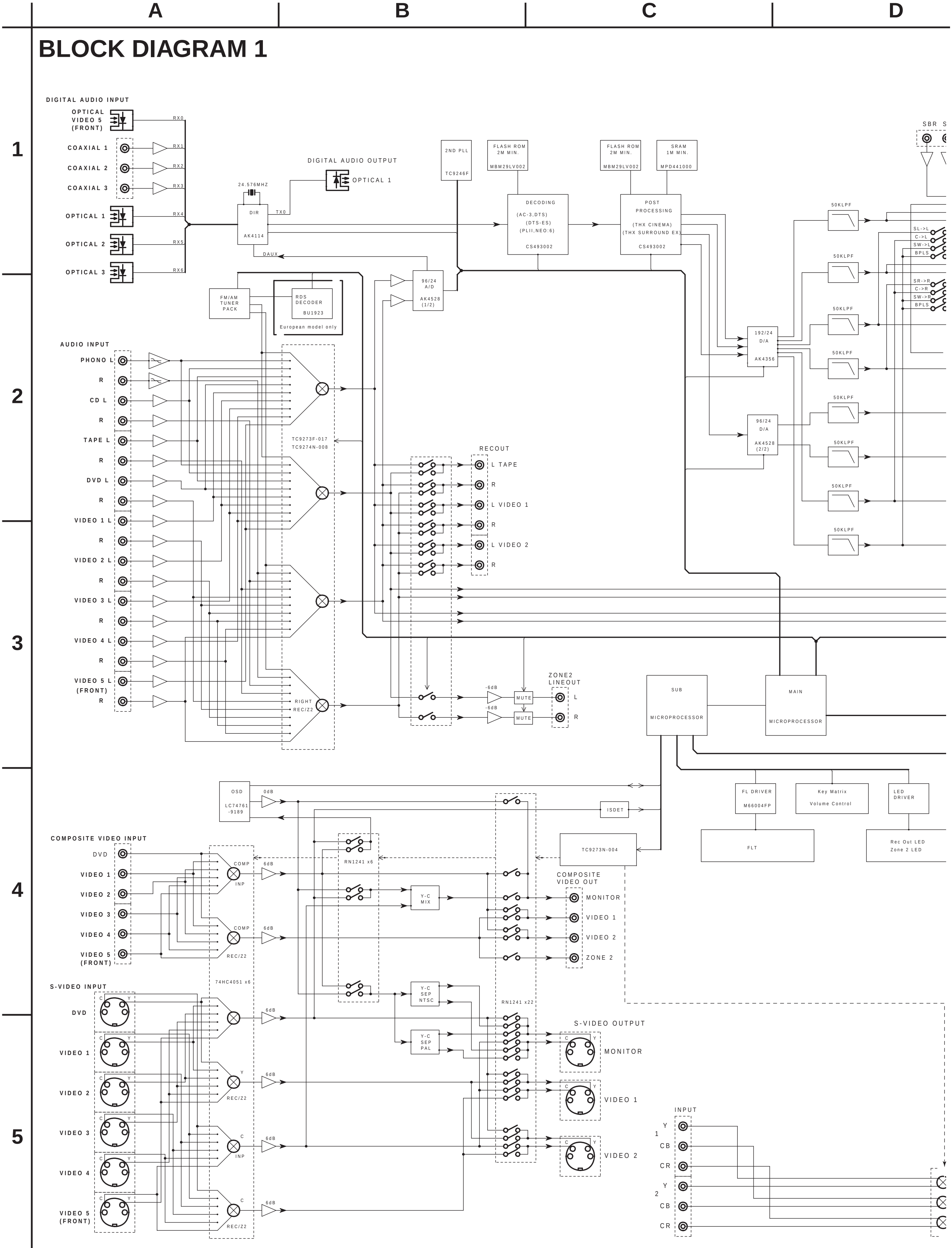
9-2 shows the number of schematic diagram.



BLOCK DIAGRAM

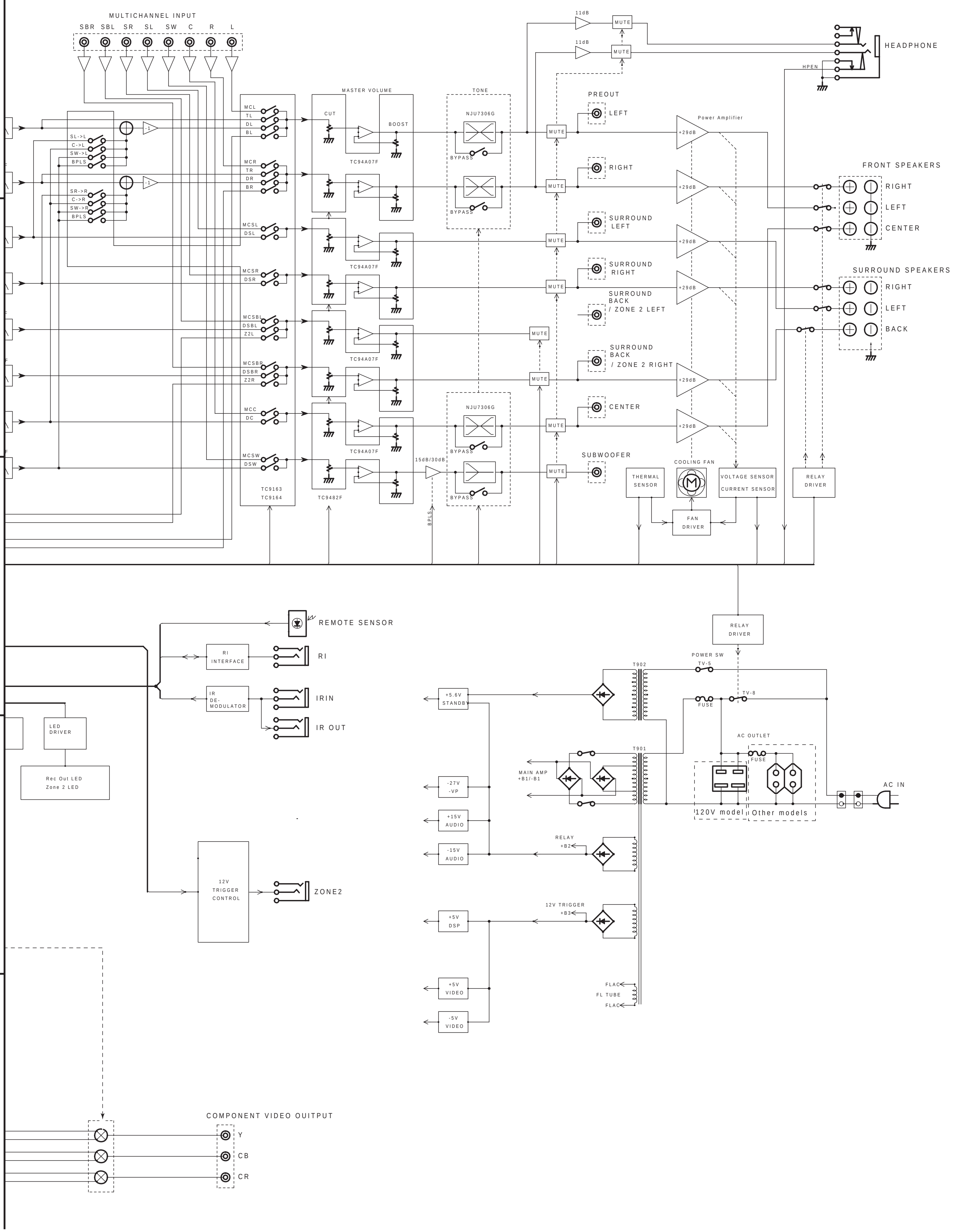


BLOCK DIAGRAM 1



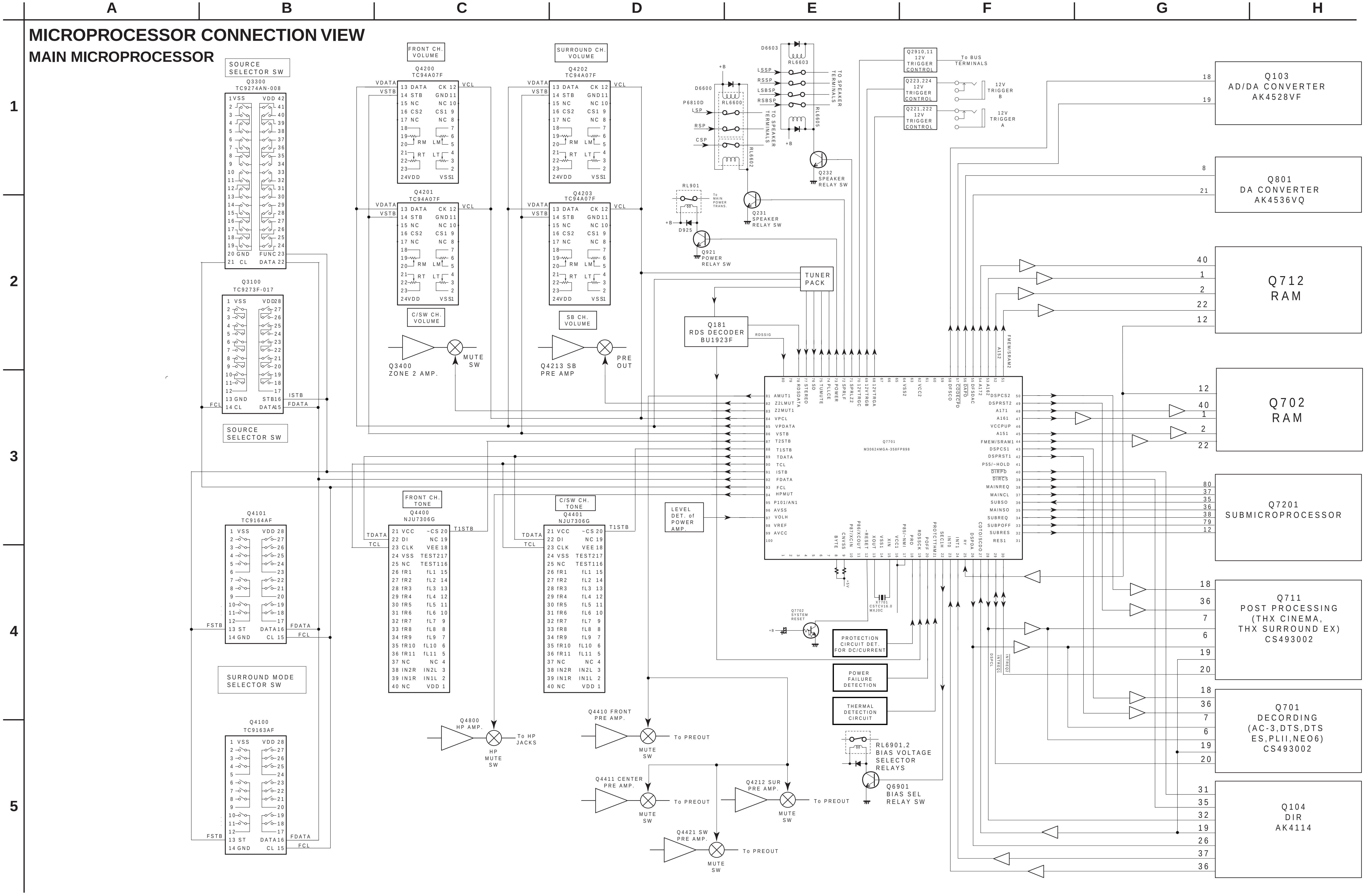
A	B	C	D

BLOCK DIAGRAM 2



MICROPROCESSOR CONNECTION VIEW

MAIN MICROPROCESSOR

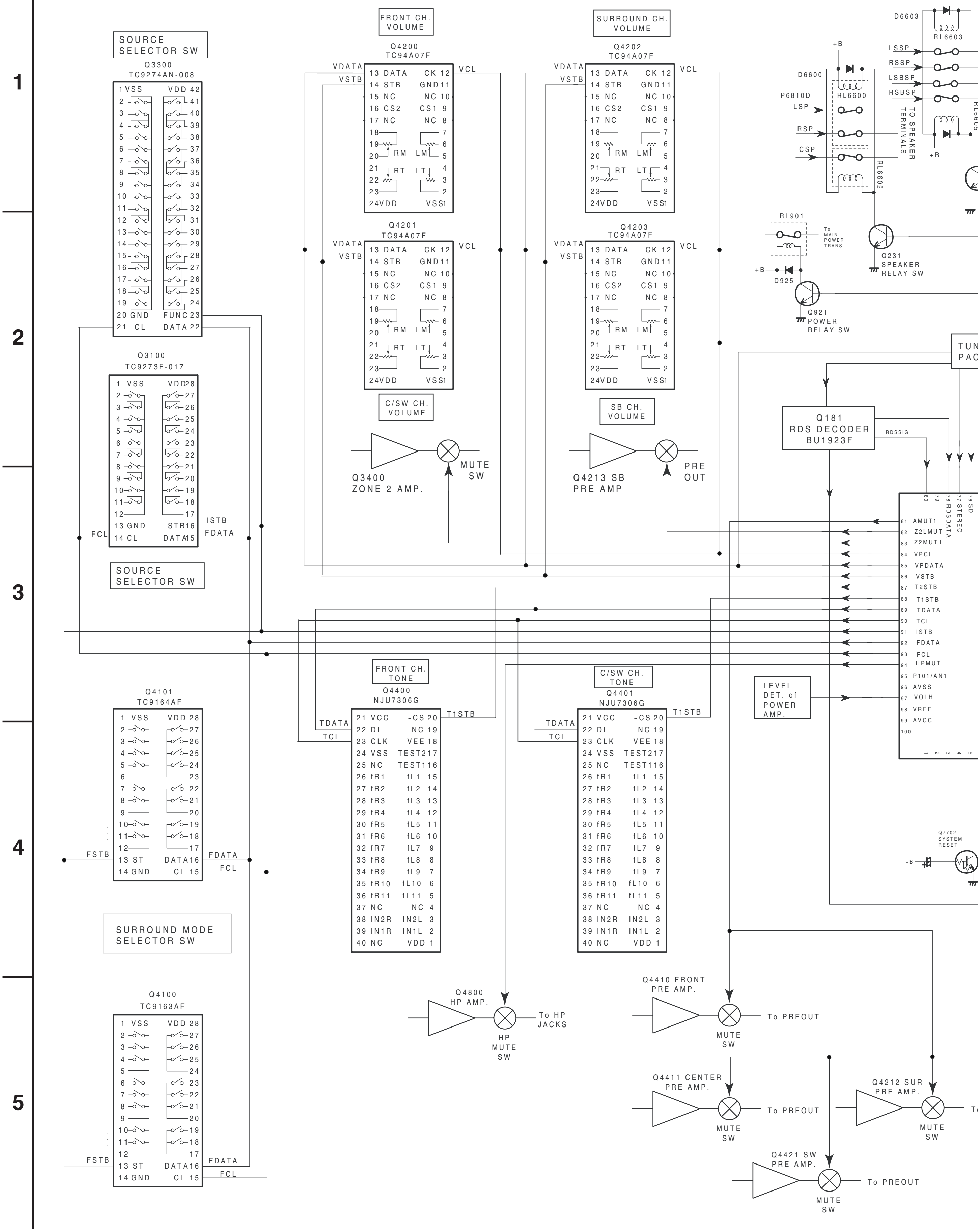


MAIN MICROPROCESSOR
Terminal Descriptions

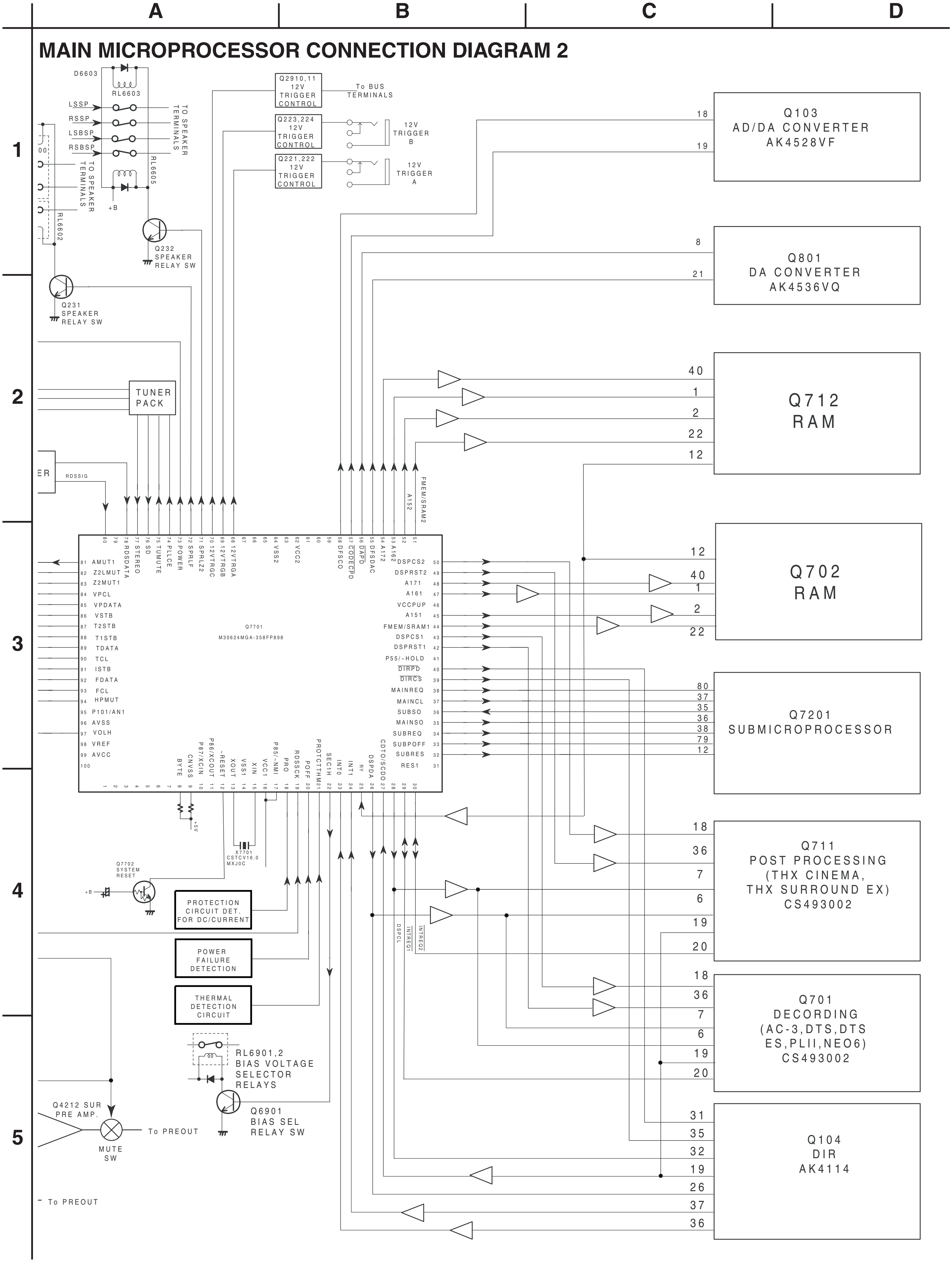
No.	Function	I/O	Act.	Description
8	BYTE	I		Input pin to change the width of external data bus. Connect to Vss.
9	CNVSS	I		Input pin to change the processor mode. Connect to Vss.
12	~RESET	I		Reset pin of microprocessor
13	XOUT	O		Output pin of main clock oscillator
14	VSS	I		Ground pin
15	XIN	I		Input pin of main clock oscillator
16	VCC	I		Power supply pin. Apply 5V.
18	PRTCTV	I	H	Abnormal voltage/current detection input pin from protection circuit
19	RDSSCK	I	CLK	Modulator clock signal input pin from RDS decoder IC.
20	~POFF	I	L	Input pin from detection circuit of power failure
21	~PRTCTTHM	I	L	Input pin from thermal detector circuit.
22	SEC1H	O	H	Output terminal to change voltage of main amplifier.
23	INT0	I	H	Input terminal from interrupter output of DIR IC.
24	INT1	I	H	Output terminal to interrupter input of DIR IC.
25	(DSPWRITE)	I	L	Input port for check when DSP flash write.
26	DIGSO	O	H	Serial data output pin to DSP,DIR,DAC, nd Digital input ICs.
27	DIGSI	I	H	Serial data input pin from DSP, and DIR ICs.
28	DIGSCK	O	CLK	Serial clock output pin to DSP,DIR,DAC,Digital input ICs.
29	~INTRQ1	I	L	INTRQ input pin from DSP IC 2(CS49329)
30	~INTRQ2	I	L	INTRQ input pin from DSP IC 1(CS49300)
32	~SUBRESET	O	L	Reset signal output pin to sub-microprocessor.
33	~SUBPOFF	O	L	Output pin to connect to pin POFF of sub-microprocessor.
34	~SUBREQ	I	L	Communication request input pin from sub-microprocessor.
35	MAINSO	O	H	Serial data output pin to sub-microprocessor.
36	MAINSI	I	H	Serial data input pin from sub-microprocessor.
37	MAINSCK	O	CLK	Serial clock output pin for communication of main and sub-microprocessors.
38	~MAINREQ	O	L	Communication request output pin of main microprocessor.
39	~DIRCS	O	L	Chip select output pin of DIR IC,
40	~DIRRST	O	L	Reset signal output pin to DIR IC,
41				Writing port of flash memory IC.
42	~DSPRST1	O	L	Reset signal output pin to DSP IC 2.
43	~DSPCS1	O	L	Chip select output pin to DSP IC 1.
44	FMEM/SRAM1	O	H	Memory select output pin to RAM.
45	ADR151	O	H	Signal output pin to control address 15 of flash memory for first DSP.
46				Port to write the flash memory IC.
47	ADR161	O	H	Signal output pin to control address 16 of flash memory for first DSP.
48	ADR171	O	H	Signal output pin to control address 17 of flash memory for first DSP.
49	~DSPRST2	O	L	Reset output pin to DSP IC 2.
50	~DSPCS2	O	L	Chip select output pin to DSP IC 2.
51	FMEM/SRAM2	O	H	2nd DSP memory select output pin.L=FLASH,H=SRAM
52	ADR152	O	H	Signal output pin to control address 15 of flash memory for second DSP.
53	ADR162	O	H	Signal output pin to control address 16 of flash memory for second DSP.
54	ADR172	O	H	Signal output pin to control address 17 of flash memory for second DSP.
55	DFSDAC	O	H	DAC sampling control output pin.
56	~DARST	O	L	Reset output pin for six channels DAC.
57	~CODECPD	O	L	Reset output pin for CODEC IC.
58	DFSCO	O	H	Sampling frequency control output pin for CODEC IC.
62	VCC	I		Power supply pin. Apply 5V.
64	VSS	I		Power supply pin. Connect to ground,
68	TRG12A	O	H	Output pin A to control the 12V trigger circuit.
69	TRG12B	O	H	Output pin B to control the 12V trigger circuit.
70	TRG12Z	O	H	Output pin to control the 12V trigger circuit of zone 2.
71	SPRLZ2	O	H	Output pin to control the speaker relay of zone 2.
72	SLRLF	O	H	Output pin to control the speaker relay.
73	POWER	O	H	Output pin to control the relay of power source.
74	PLLCE	O	H	Latch data output pin to PLL IC.
75	TUMUT	O	H	Muting control output pin for tuner block.
76	~SD	I	L	Signal detection input pin from tuner section.
77	~STEREO	I	L	Stereo broadcast detection input pin.
78	RDSDATA	I	H	Data input pin from RDS demodulator IC.
79	RDSSIG	I	H	Check signal input pin of RDS demodulator IC.
81	AMUT	O	H	Muting control output pin for audio circuit.
82	Z2LMUT	O	H	Muting control output pin for line of zone 2.
83	Z2MUT	O	H	Muting control output pin for zone 2.
84	VPCLK	O	H	Serial clock output pin to electrical volume and PLL IC,
85	VPDATA	O	H	Serial data output pin to electrical volume and PLL IC,
86	VSTB	O	H	Strobe output pin to electrical volume IC.
87	TCS2	O	L	Chip select output pin to tone control IC of surround and center channels.
88	TCS1	O	L	Chip select output pin to tone control IC of front channel..
89	TDATA	O	H	Serial data output pin to tone control IC.
90	TCLK	O	CLK	Serial clock output pin to tone control IC.
91	FSTB	O	H	Strobe output pin to function switch ICs.
92	FDATA	O	H	Serial data output pin to function switch ICs.
93	FCLK	O	CLK	Serial clock output pin to function switch ICs.
94	HPMUT	O	H	Muting control output pin for headphone circuit.
96	VSS	I		Power supply pin for A/D converter. Connect to ground.
97	VOLH	I	H	Measurement input pin of main amplifier output.
98	VREF	I		Reference voltage input pin for A/D converter.
99	VCC	I		Power supply pin for A/D converter. Apply 5V.

TX-DS797

MAIN MICROPROCESSOR CONNECTION DIAGRAM 1

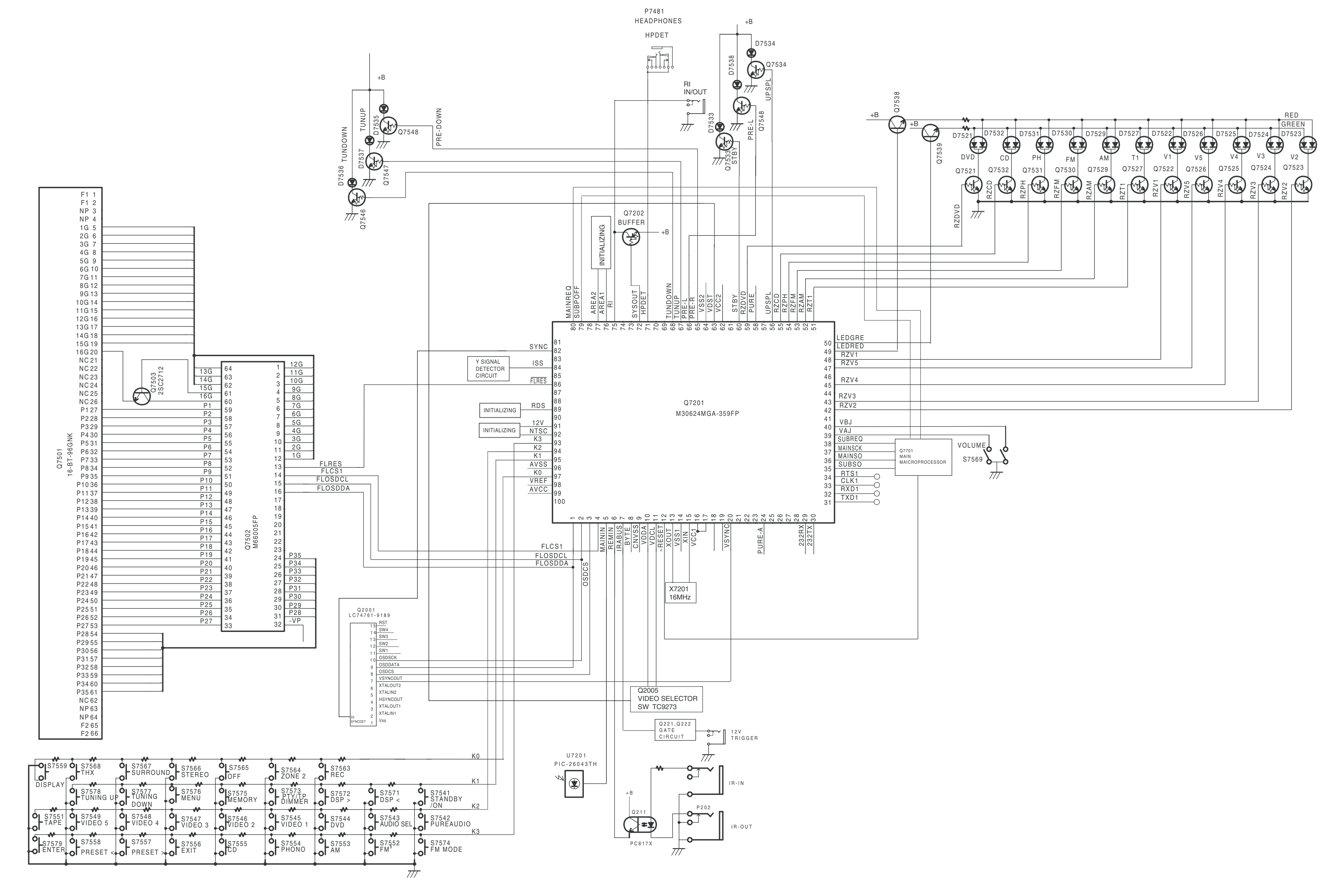


MAIN MICROPROCESSOR CONNECTION DIAGRAM 2



A	B	C	D	E

SUBMICROPROCESSOR-CONNECTION DIAGRAM



1
2
3
4

SUBMICROPROCESSOR

Terminal Descriptions

No,	Function	I/O	Descriptions
1	FLOSDDA	O	Serial data output pin for FL tube driver and OSD IC.
2	FLOSDCL	O	Serial clock output pin for FL tube driver and OSD IC.
3	OSDCS	O	Chip select output pin for OSD IC
4	FLCS	O	Chip select output pin for FL tube driver
5	MAININ	I	Signal input pin from remote control
6	REMIN	I	Signal input pin from external remote control
7	Z2RIN	I	Signal input pin from remote control of zone 2.Not used.
8	VSS		Power supply pin
10	VDDA	O	Serial data output pin for video function switch IC
11	VDCL	O	Serial clock input pin for video function switch IC
12	~RESET	I	System reset input.
13	XOUT	O	Connect the ceramic oscillator 16MHz.
14	VSS		Ground pin
15	XIN	I	Connect the ceramic oscillator 16MHz.
16	VCC		Power supply pin. Apply 5V.
20	VSYNC	I	Vertical synchronizing signal input pin.
24	PURE	O	Pure audio relay control output pin. Not used.
29	232RX	I	Receiving input pin of RS232C. Not used.
30	232TX	O	Sending output pin of RS232C.Not used..
31	TXD1	O	Rewrite sending output pin to flash IC.
32	RXD1	I	Rewrite receiving input pin from flash IC.
33	CLK1	I	Rewrite clock input pin from flash IC.
34	RTS1	O	Rewrite response output pin to flash IC.
35	SUBSO	O	Data sending output pin to communicate between microprocessors.
36	MAINSO	I	Data receiving input pin to communicate between microprocessors.
37	MAINCL	I	Clock receiving input pin to communicate between microprocessors.
38	SUBREQ	O	Request signal output pin to communicate between microprocessors.
39	VAJ	I	Pulse signal input terminal A pin from rotary encoder.
40	VBJ	I	Pulse signal input terminal B pin from rotary encoder.
42	RZV2	O	Video 2 indicator output pin.
43	RZV3	O	Video 3 indicator output pin.
45	RZV4	O	Video 4 indicator output pin.
47	RZV5	O	Video 5 indicator output pin.
48	RZV1	O	Video 1 indicator output pin.
49	LEDRED	O	Power supply control output pin for recording indicator.
50	LEDGRE	O	Power supply control output pin for zone 2 indicator
51	RZTP	O	Tape indicator output pin.
52	RZAM	O	AM indicator output pin.
53	RZFM	O	FM indicator output pin.
54	RZPH	O	Phono indicator output pin.
55	RZCD	O	CD indicator output pin.
58	UPSPL	O	Upsampling frequency indicator control output pin
58	PURE	O	Pure audio indicator output pin.
59	RZDVD	O	DVD indicator output pin.
60	STBY	O	STANDBY/RECEIVED indicator output pin.
62	VCC		Power supply pin. Apply 5V.
63	VDST	O	Strobe output pin for video switch control output pin
64	VSS		Power supply pin. Connect to ground.
71	HPDET	I	Headphone detect5ion input pin.
72	SYSOUT	O	System code output pin
75	SYSIN	I	System code input pin.
76	AREA1	I	Initializing input pin for band aria.
77	AREA2	I	Initializing input pin for band aria.
79	SUBPOFF	I	Power failure intercept input pin between microprocessors.
80	MAINREQ	I	Request input to communicate data between microprocessors.
82	SYNCDET	I	External synchronizing detection input pin.
84	ISS	I	S video signal detection input pin.
86	FLRES	O	Reset signal output pin to the FL tube driver IC.
89	RDS	I	Initializing input pin for RDS broadcast.
90	AMP	I	Initializing input pin for model
91	12V	I	Initializing input pin for 12V trigger.
92	NTSC	I	Initializing input terminal for NTSC/PAL.
93	K3	I	Operation key connection pin.
94	K2	I	Operation key connection pin.
95	K1	I	Operation key connection pin.
96	VSS		Power supply pin for A/D converter.
97	K0	I	Operation key connection pin.
98	VREF		Reference voltage input pin for A/D converter.
99	VCC		Power supply pin for A/D converter. Apply 5V.

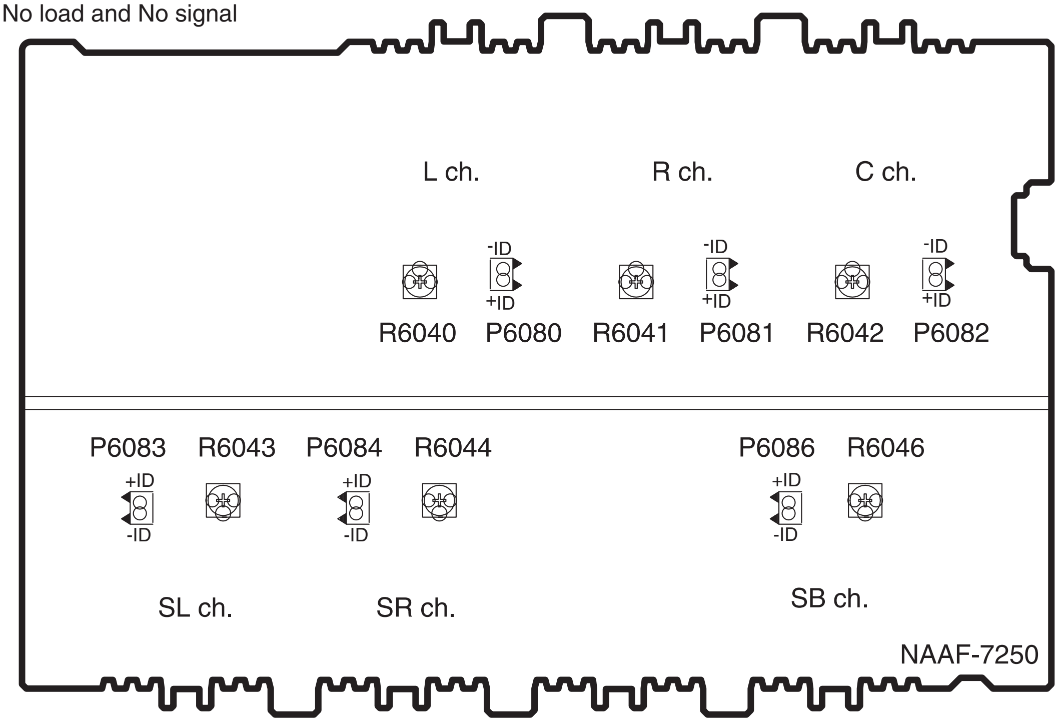
ADJUSTMENT AND CONFIRMATION PROCEDURES 1

Idling current adjustment

Before Idling adjustment, turn the trimming resistors R6040,R6041,R6042,R6043,R6044 and R9046 to counter clockwise
Connect the DC voltmeter to sockets P6080,P6081,P6082,P6083,P6084 and P6086.
After turn POWER to ON, adjust the trimming resistors R6040, R6041 and R6042 so that the reading of voltmeter becomes 7.0 mV. (Front and center channels)
Adjust the trimming resistors R6043, R6044 and R6046 so that the reading of voltmeter becomes 5.0 mV. (Surround and surround back channels)
After adjustment, attach the top cover.
Confirm the voltage of points above after about five minutes.

Front and center channels
When less than 9.0 mV, readjust the resistors above so that the voltage becomes 9.0 mV.
When 9.0 mV to 11.0 mV, you are not necessary to adjust.
When more than 11.0 mV, readjust the resistors above so that the voltage becomes 11.0 mV.

Surround and surround back channels
When less than 6.0 mV, readjust the resistors above so that the voltage becomes 6.0 mV.
When 6.0 mV to 8.0 mV, you are not necessary to adjust.
When more than 8.0 mV, readjust the resistors above so that the voltage becomes 8.0 mV.
Note: No load and No signal



Confirmation of protection circuit

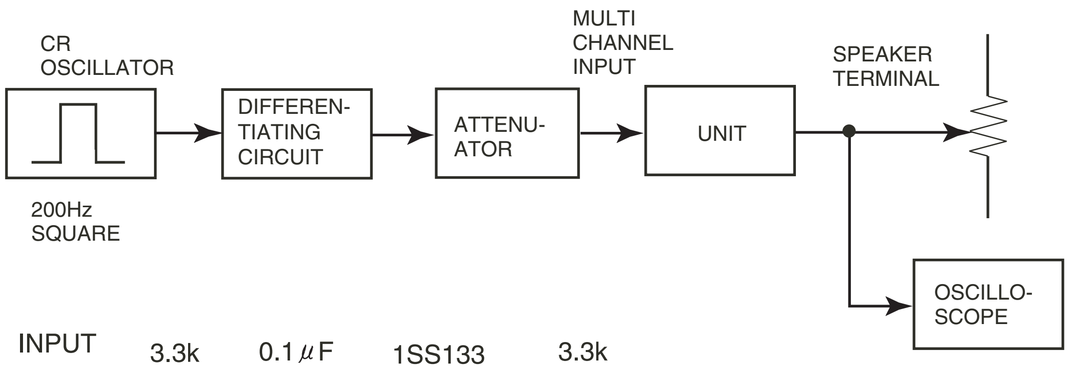
1. Confirmation of operation of speaker relay
Confirm that the speaker relays turn ON approximate. 5 seconds after the power switch is turned ON.
Confirm that the speaker relays turn OFF immediately after the power switch is turned OFF.

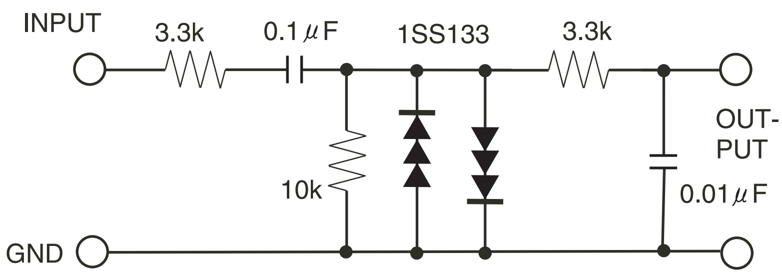
2. Confirmation of DC detection circuit
Press and hold down CD button, then press STANDBY/ON and DISPLAY buttons to set the unit to "TEST-1" mode.
After "TEST-1" on the FL tube light on, press VIDEO 1 button to set the unit to "TEST-1-00".
Apply DC 1.5 to 3V to MULTI CHANNEL INPUT terminal with no load.
Confirm that the speaker relay turns OFF.
Apply DC -1.5 to -3V to MULTI CHANNEL INPUT terminal with no load.
Confirm that the speaker relay turns OFF.
Caution: Don't apply DC voltage more than 1 sec..

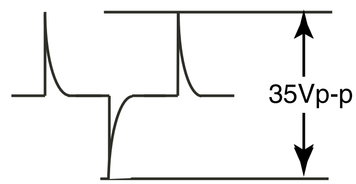
ADJUSTMENT AND CONFIRMATION PROCEDURES 2

3. Confirmation of Current detection circuit

Set the unit to "TEST-1-00".
Connect the differentiating circuit and apply the 200Hz square signal to MULTI CHANNEL INPUT terminal.
of each channel.
Adjust the attenuator or Volume so that the output level becomes 35V p-p.
Confirm that the speaker relay does not turn OFF when a 3.0 ohm load is connected.
Confirm that the speaker relay turns OFF when a 1.5 ohm load is connected.



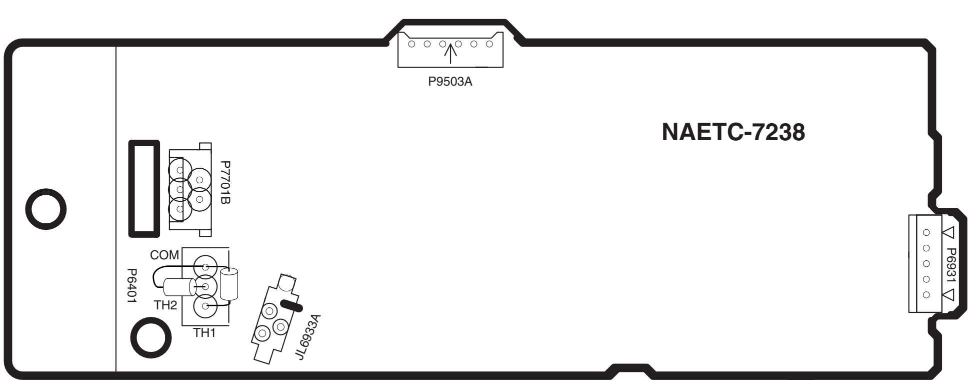




Differentiating Circuit

Confirmation of fan

Set the unit to "TEST-1-00".
Apply the 1kHz -30dBV signal to the left channel of MULTI-CH terminal with no load.
Confirm that the fan rotates slow speed after few seconds.
Connect the 1.2 kohm/1W resistor between terminals COM and TH-1 of P6401 with no input signal.
Confirm that the fan rotates slow speed after few seconds.
Next apply the 1kHz -30dBV signal to the left channel of MULTI-CH terminal with no load.
Confirm that the fan rotates high speed after few seconds.
Connect the 1.2 kohm/1W resistors between terminals COM-TH-1 and COM-TH-2 of P6401 respectively with no input signal.
Confirm that the fan rotates high speed after few seconds.



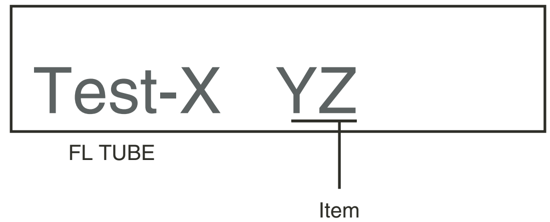
ADJUSTMENT AND CONFIRMATION PROCEDURES 3

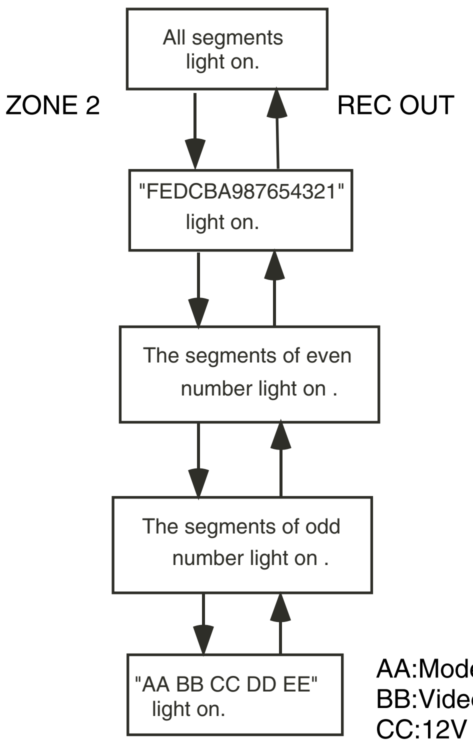
Test Mode

1. Turn POWER button on.
2. Press and hold down CD button, then press DISPLAY and STANDBY/ON buttons.
3. After "TEST-1" on the FL tube is displayed, press CD button to set the unit to the test mode of FL tube.

Note: VIDEO 1:TEST-1 VIDEO 2 :TEST-2 ZONE2: UP
VIDEO 3 :TEST-3 VIDEO 4:TEST-4 REC OUT: DOWN

Test mode of FL tube





Confirmation of voltage sensor

1. Set the unit to TEST-3-4.
2. Apply the signal 1kHz, -15dBV to the MULTI-CH input. Confirm that the FM STEREO is displayed. Confirm the all channels except SUBWOFFER.
3. When connect the resistor 1.2 kohm/1 W between the terminals COM and TH1 of P6401, confirm that "MEMORY" light on.
Note: No input signal.
4.When change set the unit to "TEST-4-39,confirm that the speaker relays of RL6901 and RL6902 turn off.
Note: No input signal.

AA:Model "89":TX-DS898 "79":TX-DS797
BB:Video Mode "NS": NTSC "PL": PAL AUTO
CC:12V TRIGGER "TR": Available " ":No available
DD:RDS "RD": Available " ":No available
EE:Tuner band EU:Europe US: USA SA:Worldwide JP:Japan

Press POWER button
to finish the test mode of FL tube.

A	B	C	D	E

EXPLODED VIER

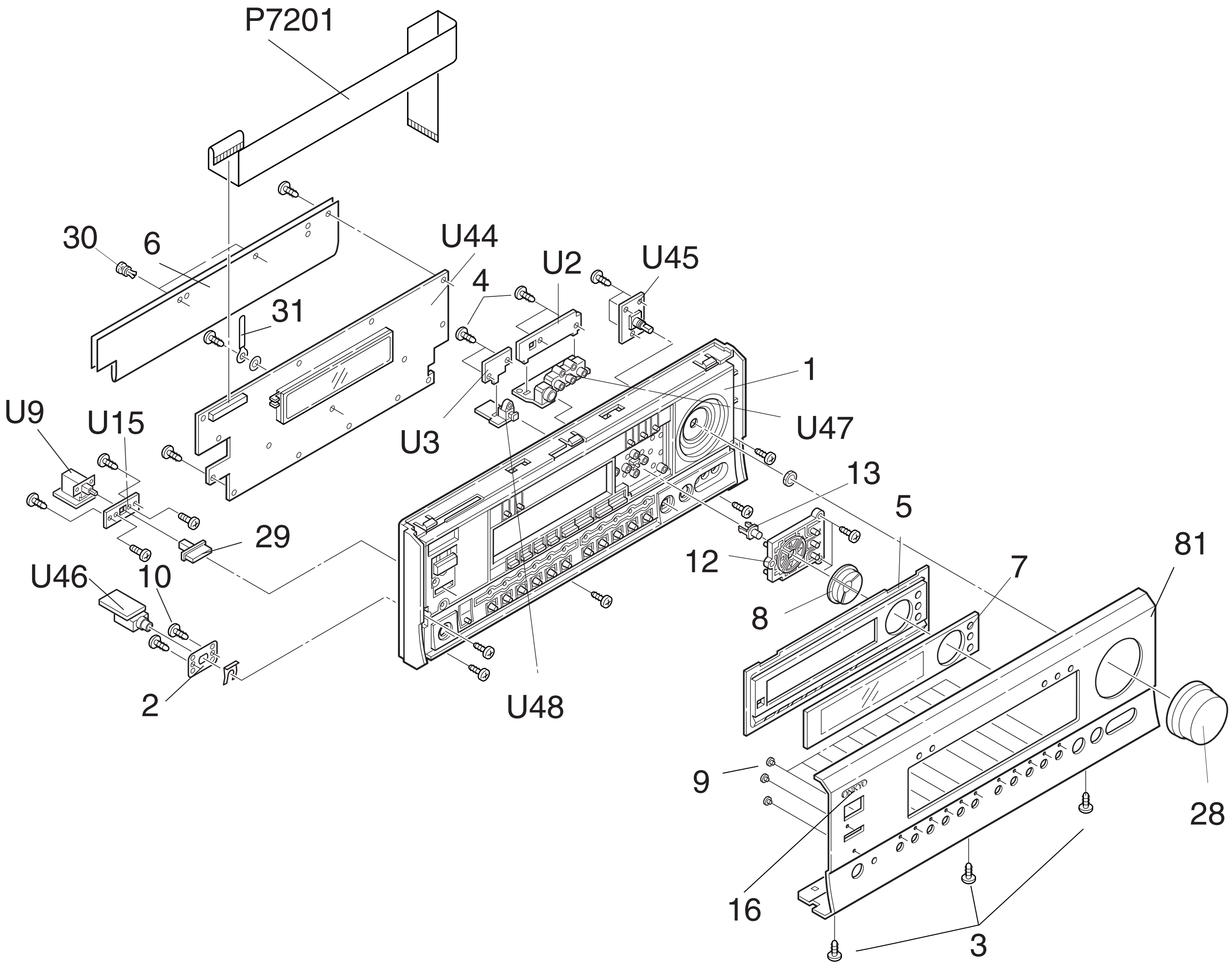
Front panel section

1

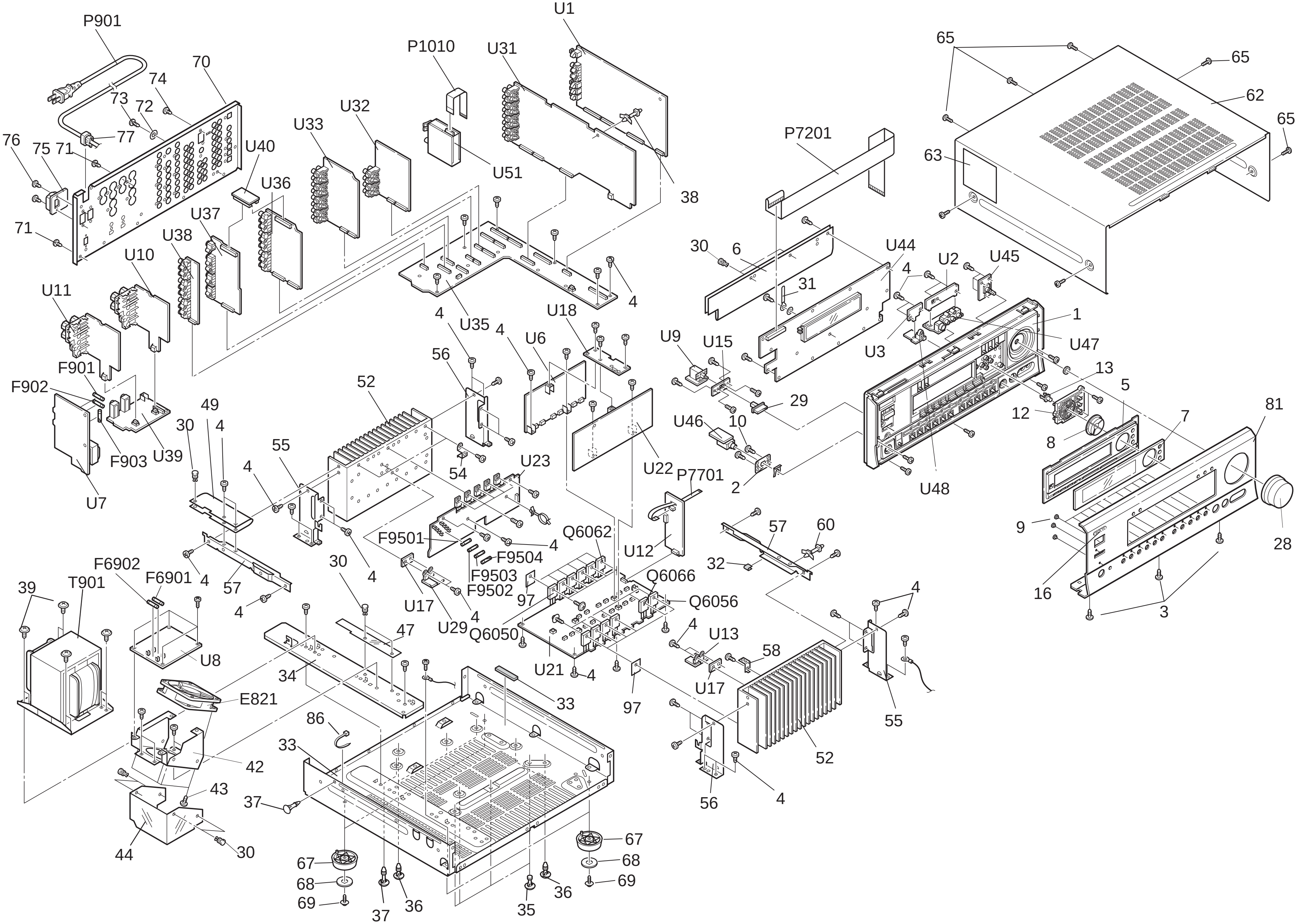
2

3

4



EXPLODED VIEW



EXPLODED VIEW-PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1	27111248	Front bracket <B>
	27111249	Front bracket <S>
	27111250	Front bracket <G>
2	27141787	Retainer HP
3	838430088	3TTB+8B(BC),Self-tapping screw
4	838130088	3TTB+8B,Self-taping screw
5	27215360	Decorative frame <B>
	27215361	Decorative frame <S>
	27215362	Decorative frame <G>
6	27150472	Shield plate, FFC
7	28191942	Clear plate <B>
	28191943	Clear plate <S/G>
8	28325964A	Knob CL
9	28198778	Facet
10	82143010	3P+10FN(BC),Pan head screw
12	28325965	Knob, tuning
13	28330142	Cap, tuning
14	27270375	Spacer
16	28135244	Badge <B>
	28135245	Badge <G/S>
28	28325898	Knob, volume <B>
	28325899	Knob, volume <S>
	28325900	Knob, volume <G>
29	28325497A	Knob, power <B>
	28325547A	Knob, power <S>
	28325499A	Knob, power <G>
30	880016	P3035B,Plastic rivet
31	27255004	CS-1U,Clip
32	29110083	Tape, cloth
33	27100408	Chassis
34	27130870	Bracket PT
35	27190965	Holder
36	27190693A	KGLS-6RF,Holder
37	27190266	KGLS-12RF,Holder
38	27190164	KGLS-14S,Holder
39	830440089	4TTC+8C(BC),Self-tapping screw
41	28141484	Cushion
42	27141797	Retainer, fan
43	838450108	5TTB+10B(BC),Self-tapping screw
44	27150470	Shield plate, fan
47	27150471	Shield plate, amp.
49	27150474	Shield plate, wire
52	27160489	Heat sink
53	801433	3SMS8W.SW+14B(BC),Special screw
54	27141681	Retainer, PCB
55	27141798	Retainer, heat sink R
56	27141799	Retainer, heat sink L
57	27130869	Bracket, heat sink
58	27130745	Bracket
60	27190470	KGLS-18S,Holder
61	838430107	3TTB+10S(BC),Self-tapping screw
62	28184817	Top cover <B>
	28184818	Top cover <S>
	28184819	Top cover <G>
63	29362959	Label
65	838430088	3TTB+8B(BC),Self-tapping screw <B>
	838930088	3TTB+8B(UN),Self-tapping screw <S/G>

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (HFE) as the original type.

REF. NO.	PART NO.		DESCRIPTION
67	27175319A		Leg
68	28141332		Cushion
69	831430088		3TTW+8B(BC),Self-tapping screw
70	27122906		Rear panel <D>
	27122907		Rear panel <P>
	27122908		Rear panel <WT>
	27122909		Rear panel <A>
	27122910		Rear panel <R>
	27122911		Rear panel <GT>
71	838430088		3TTB+8B(BC),Self-tapping screw
72	87643010		W3*10F(BC),Flat washer
73	838930088		3TTB+8B(UN),Self-tapping screw
74	838430068		3TTB+6B(BC),Self-tapping screw
75	27191130	⚠	Holder, outlet <R>
76	838440089		4TTB+8C(BC),Self-tapping screw <O>
77	27300750	⚠	Bushing cord
81	27212349A		Front panel <B><D/WT/A>
	27212350A		Front panel <B><P>
	27212351A		Front panel <S>
	27212352A		Front panel <G>
86	260208		Wire tie
97	223025		AC262,Isolated sheet
E821	24502310		D09T-24PG10(EX),Fan
F6901,F6902	252199		10A-UL, Fuse <D>
	252100		10A-EAK, Fuse <O>
F901	252199	⚠	10A-UL, Fuse <D/WT/WR>
F902	252077,	⚠	4A-SE-EAK,
	252243 or	⚠	4A-SE-TL250V or
	252277	⚠	4A-SE-TL250V,Fuse <O>
F903	252075,	⚠	2.5A-SE-EAK,
	252241 or	⚠	2.5A-SE-TL250V or
	252275	⚠	2.5A-SE-TL250V,Fuse <O>
F9501,F9502	252160 or	⚠	2.5A-UL/T-237 or
	252254	⚠	2.5A-T/UL-ST2,Fuse <D>
	252075,	⚠	2.5A-SE-EAK,
	252241 or	⚠	2.5A-SE-TL250V or
	252275	⚠	2.5A-SE-TL250V,Fuse <O>
F9503,F9504	252158 or	⚠	1.6A-UL/T-237 or
	252252	⚠	1.6A-T/UL-ST2,Fuse <D>
	252073 or	⚠	1.6A-SE-EAK or
	252239	⚠	1.6A-SE-TL250V,Fuse <O>
P1010	2047151012		NCFC7-151012,Flat cable
P7201	2047335512		NCFC7-335512,Flat cable
P7701	2047051012		NCFC7-051012,Flat cable
P901	253279HIT or	⚠	AS-UC-2#18 or
	253280VOL	⚠	AS-UC-2#18,Power supply cord <D>
	253233KAW	⚠	AS-CEE-2,Power supply cord <P/WT/GT>
	253197HIT	⚠	AS-SAA,Power supply cord <A>
	253267KAW,	⚠	AS-CCEE,
	253285HIT or	⚠	AS-CCEE or
	253286VOL	⚠	AS-CCEE,Power supply cord <R>
Q6050-Q6054	2202823 or	*	2SC5200-O or
Q6056	2202822	*	2SC5200-R,Transistor
Q6060-Q6064	2202813 or	*	2SA1943-O or
Q6066	2202812	*	2SA1943-R,Transistor

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

EXPLODED VIEW-PARTS LIST

REF. NO.	PART NO.		DESCRIPTION
T901	2301536	⚠	NPT-1421D,Power transformer <D>
	2301537	⚠	NPT-1421P,Power transformer <P/A>
	2301538	⚠	NPT-1421DG,Power transformer <WT/R/GT>
U1	1A906526-1N		NADG-7226-1N, Main circuit PC board ass'y <D>
	1A906526-1O		NADG-7226-1O, Main circuit PC board ass'y <P>
	1A906526-1R		NADG-7226-1R, Main circuit PC board ass'y <WT/A/R/GT>
U6	1A906532-1N		NAAF-7232-1N, F/C driver circuit PC board ass'y <D>
	1A906532-1O		NAAF-7232-1O, F/C driver circuit PC board ass'y <P>
	1A906532-1P		NAAF-7232-1P, F/C driver circuit PC board ass'y <R>
	1A906532-1Q		NAAF-7232-1Q, F/C driver circuit PC board ass'y <WT>
	1A906532-1R		NAAF-7232-1R, F/C driver circuit PC board ass'y <GT>
	1A906532-1U		NAAF-7232-1U, F/C driver circuit PC board ass'y <A>
U7	1A906533-1N		NAPS-7233-1N,Primary circuit PC board ass'y <D>
	1A906533-1O		NAPS-7233-1O,Primary circuit PC board ass'y <P>
	1A906533-1P		NAPS-7233-1P,Primary circuit PC board ass'y <R>
	1A906533-1Q		NAPS-7233-1Q,Primary circuit PC board ass'y <WT>
	1A906533-1R		NAPS-7233-1R,Primary circuit PC board ass'y <GT>
	1A906533-1U		NAPS-7233-1U,Primary circuit PC board ass'y <A>
U8	1A906534-1N		NAPS-7234-1N,Rectifier circuit PC board ass'y <D>
	1A906534-1O		NAPS-7234-1O,Rectifier circuit PC board ass'y <P>
	1A906534-1P		NAPS-7234-1P,Rectifier circuit PC board ass'y <R>
	1A906534-1Q		NAPS-7234-1Q,Rectifier circuit PC board ass'y <WT>
	1A906534-1R		NAPS-7234-1R,Rectifier circuit PC board ass'y <GT>
	1A906534-1U		NAPS-7234-1U,Rectifier circuit PC board ass'y <A>
U9	1A906535-1N		NASW-7235-1N,Power switch PC board ass'y <D>
	1A906535-1O		NASW-7235-1O,Power switch PC board ass'y <P>
	1A906535-1P		NASW-7235-1P,Power switch PC board ass'y <R>
	1A906535-1Q		NASW-7235-1Q,Power switch PC board ass'y <WT>
	1A906535-1R		NASW-7235-1R,Power switch PC board ass'y <GT>
	1A906535-1U		NASW-7235-1U,Power switch PC board ass'y <A>
U10	1A906536-1N		NAETC-7236-1N,Speaker terminal F/C PC board ass'y <D>
	1A906536-1O		NAETC-7236-1O,Speaker terminal F/C PC board ass'y <P>
	1A906536-1P		NAETC-7236-1P,Speaker terminal F/C PC board ass'y <R>
	1A906536-1Q		NAETC-7236-1Q,Speaker terminal F/C PC board ass'y <WT>
	1A906536-1R		NAETC-7236-1R,Speaker terminal F/C PC board ass'y <GT>
	1A906536-1U		NAETC-7236-1U,Speaker terminal F/C PC board ass'y <A>
U11	1A906537-1N		NAETC-7237-1N,Speaker terminal SR/SB PC board ass'y <D>
	1A906537-1O		NAETC-7237-1O, Speaker terminal SR/SB PC board ass'y <P>
	1A906537-1P		NAETC-7237-1P, Speaker terminal SR/SB PC board ass'y <R>
	1A906537-1Q		NAETC-7237-1Q, Speaker terminal SR/SB PC board ass'y <WT>
	1A906537-1R		NAETC-7237-1R, Speaker terminal SR/SB PC board ass'y <GT>
	1A906537-1U		NAETC-7237-1U, Speaker terminal SR/SB PC board ass'y <A>
U12	1A906538-1N		NAETC-7238-1N,Fan drive circuit PC board ass'y <D>
	1A906538-1O		NAETC-7238-1O,Fan drive circuit PC board ass'y <P>
	1A906538-1P		NAETC-7238-1P,Fan drive circuit PC board ass'y <R>
	1A906538-1Q		NAETC-7238-1Q,Fan drive circuit PC board ass'y <WT>
	1A906538-1R		NAETC-7238-1R,Fan drive circuit PC board ass'y <GT>
	1A906538-1U		NAETC-7238-1U,Fan drive circuit PC board ass'y <A>
U13	1A906539-1N		NAETC-7239-1N,Thermal detector circuit PC board ass'y <D>
	1A906539-1O		NAETC-7239-1O,Thermal detector circuit PC board ass'y <P>
	1A906539-1P		NAETC-7239-1P,Thermal detector circuit PC board ass'y <R>
	1A906539-1Q		NAETC-7239-1Q,Thermal detector circuit PC board ass'y <WT>
	1A906539-1R		NAETC-7239-1R,Thermal detector circuit PC board ass'y <GT>
	1A906539-1U		NAETC-7239-1U,Thermal detector circuit PC board ass'y <A>

REF. NO.	PART NO.	DESCRIPTION
U15	1A906541-1N	NAETC-7241-1N,PC board for holder <D>
	1A906541-1O	NAETC-7241-1O,PC board for holder <P>
	1A906541-1P	NAETC-7241-1P,PC board for holder <R>
	1A906541-1Q	NAETC-7241-1Q,PC board for holder<WT>
	1A906541-1R	NAETC-7241-1R,PC board for holder <GT>
	1A906541-1U	NAETC-7241-1U,PC board for holder <A>
U17	1A906543-1N	NAETC-7243-1N,PC board for holder <D>
	1A906543-1O	NAETC-7243-1O,PC board for holder <P>
	1A906543-1P	NAETC-7243-1P,PC board for holder <R>
	1A906543-1Q	NAETC-7243-1Q,PC board for holder <WT>
	1A906543-1R	NAETC-7243-1R,PC board for holder <GT>
	1A906543-1U	NAETC-7243-1U,PC board for holder <A>
U18	1A906544-1N	NAETC-7244-1N,Ground PC board ass'y <D>
	1A906544-1O	NAETC-7244-1O,Ground PC board ass'y <P>
	1A906544-1P	NAETC-7244-1P,Ground PC board ass'y <R>
	1A906544-1Q	NAETC-7244-1Q,Ground PC board ass'y <WT>
	1A906544-1R	NAETC-7244-1R,Ground PC board ass'y <GT>
	1A906544-1U	NAETC-7244-1U,Ground PC board ass'y <A>
U21	1A906550-2A	NAAF-7250-2A,Power amplifier driver PC board ass'y <D>
	1A906550-2B	NAAF-7250-2B,Power amplifier driver PC board ass'y <O>
U22	1A906551-2A	NAAF-7251-2A,Power amplifier driver PC board ass'y <D>
	1A906551-2B	NAAF-7251-2B,Power amplifier driver PC board ass'y <O>
U23	1A906552-2A	NAPS-7252-2A,Power supply circuit PC board ass'y <D>
	1A906552-2B	NAPS-7252-2B,Power supply circuit PC board ass'y <O>
U29	1A906558-2A	NAETC-7258-2AThermal detector circuit PC board ass'y <D>
	1A906558-2B	NAETC-7258-2B,Thermal detector circuit PC board ass'y <O>
U31	1A906562-1N	NAAF-7262-1N,Preamplifier circuit PC board ass'y <D>
	1A906562-1O	NAAF-7262-1O,Preamplifier circuit PC board ass'y <P>
	1A906562-1P	NAAF-7262-1P,Preamplifier circuit PC board ass'y <PT/A/R/GT>
U32	1A906563-1N	NAAF-7263-1N,Audio terminal PC board ass'y <D>
	1A906563-1O	NAAF-7263-1O,Audio terminal PC board ass'y <P>
	1A906563-1P	NAAF-7263-1P,Audio terminal PC board ass'y <PT/A/R/GT>
U33	1A906564-1N	NAAF-7264-1N,Video terminal PC board ass'y <D>
	1A906564-1O	NAAF-7264-1O,Video terminal PC board ass'y <P>
	1A906564-1P	NAAF-7264-1P,Video terminal PC board ass'y <PT/A/R/GT>
U35	1A906567-1N	NAAR-7267-1N,Connector PC board ass'y, <D>
	1A906567-1O	NAAR-7267-1O,Connector PC board ass'y, <O>
U36	1A906568-1N	NAVD-7268-1N,Composite video circuit PC board ass'y <D>
	1A906568-1O	NAVD-7268-1O,Composite video circuit PC board ass'y <O>
U37	1A906569-1N	NAVD-7269-1N,,S video circuit PC board ass'y <D>
	1A906569-1O	NAVD-7269-1O,,S video circuit PC board ass'y <O>
U38	1A906570-1N	NAVD-7270-1N,Component video terminal PC board ass'y <D>
	1A906570-1O	NAVD-7270-1O,Component video terminal PC board ass'y <O>
U39	1A906572-1N	NAETC-7272-1N,RI terminal PC board ass'y <D>
	1A906572-1O	NAETC-7272-1O,RI terminal PC board ass'y <O>
U40	1A906573-1N	NAETC-7273-1N,PC board for holder <D>
	1A906573-1O	NAETC-7273-1O,PC board for holder <O>
U44	1A906530-1A	NADIS-7330-1A,Display circuit PC board ass'y <D>
	1A906530-1B	NADIS-7330-1B,Display circuit PC board assay <B> <P>
	1A906530-1C	NADIS-7330-1C,Display circuit PC board ass'y <B> <A>
	1A906530-1D	NADIS-7330-1D,Display circuit PC board ass'y <B> <WT>
	1A906530-1E	NADIS-7330-1E,Display circuit PC board ass'y <G> <GT/A>
	1A906530-1F	NADIS-7330-1F,Display circuit PC board ass'y <G> <WT/R>
	1A906530-1G	NADIS-7330-1G,Display circuit PC board ass'y <S> <P>

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

EXPLODED VIEW-PARTS LIST 3

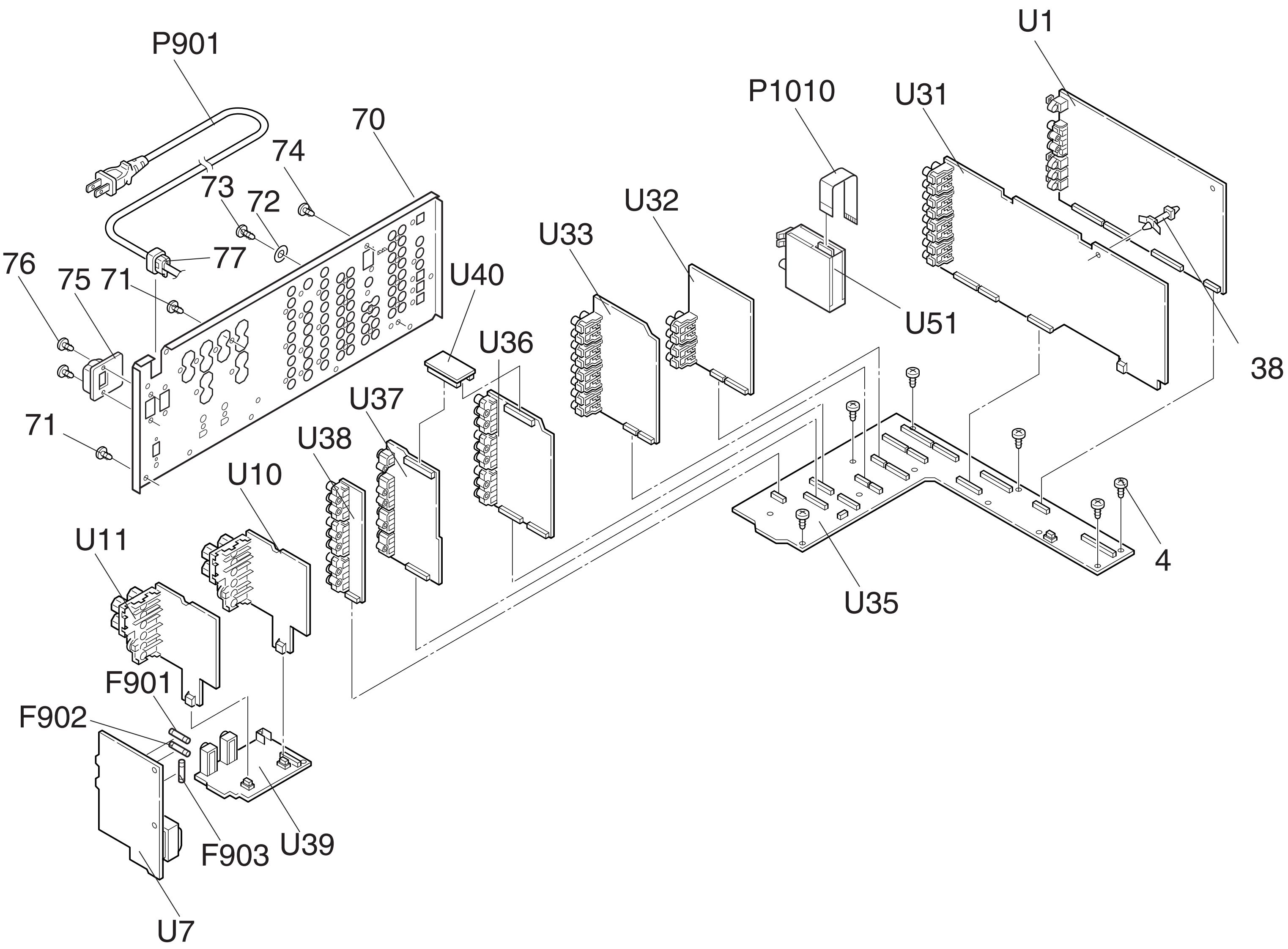
REF. NO.	PART NO.	DESCRIPTION
U45	1A906531-1A	NASW-7331-1A,Volume PC board ass'y <D>
	1A906531-1B	NASW-7331-1B,Volume PC board assay <B> <P>
	1A906531-1C	NASW-7331-1C,Volume PC board ass'y <B> <A>
	1A906531-1D	NASW-7331-1D,Volume PC board ass'y <B> <WT>
	1A906531-1E	NASW-7331-1E,Volume PC board ass'y <G> <GT/A>
	1A906531-1F	NASW-7331-1F,Volume PC board ass'y <G> <WT/R>
	1A906531-1G	NASW-7331-1G,Volume PC board ass'y <S> <P>
U46	1A906332-1A	NAETC-7332-1A,Headphone terminal PC board ass'y <D>
	1A906332-1B	NAETC-7332-1B,Headphone terminal PC board assay <B> <P>
	1A906332-1C	NAETC-7332-1C,Headphone terminal PC board ass'y <B> <A>
	1A906332-1D	NAETC-7332-1D,Headphone terminal PC board ass'y <B> <WT>
	1A906332-1E	NAETC-7332-1E,Headphone terminal PC board ass'y <G> <GT/A>
	1A906332-1F	NAETC-7332-1F,Headphone terminal PC board ass'y <G> <WT/R>
	1A906332-1G	NAETC-7332-1G,Headphone terminal PC board ass'y <S> <P>
U47	1A906527-1N	NAAF-7227-1N,Front video PC board ass'y <D>
	1A906527-1O	NAAF-7227-1O,Front video PC board ass'y <P>
	1A906527-1R	NAAF-7227-1P,Front video PC board ass'y <WT/A/GT/R>
U48	1A906528-1N	NADG-7228-1N,Front video 2 PC board ass'y <D>
	1A906528-1O	NADG-7228-1O,Front video 2 PC board ass'y <P>
	1A906528-1R	NADG-7228-1P,Front video 2 PC board ass'y <WT/A/GT/R>
U51	240138A or	ENG06501QR or
	240134A	TFCE1U114B,Tuner unit <D>
	240139A or	ENG07501QR or
	240135	TFCE1E512A,Tuner unit <P/A/WT/GT/R>

NOTE: <B>: Black model only
<S>: Silver model only
<G>: Golden model only
<D>: 120V model only
<P>: European model only
<WT>:: Worldwide model only
<GT>: 220V model only
<A>: Australian model only
<R>: Chinese model only
<O>:Except 120V model

A	B	C	D	E

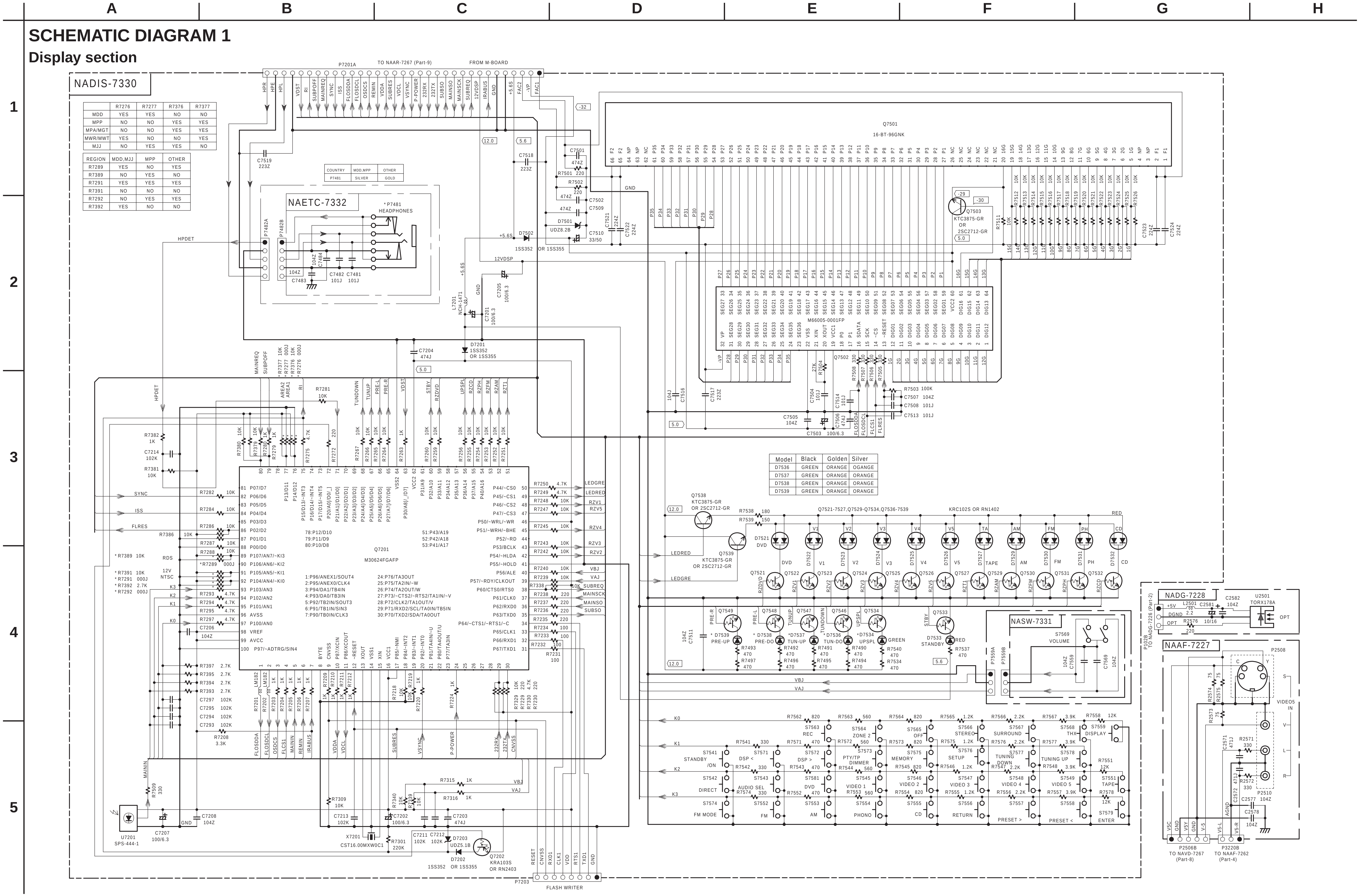
EXPLODED VIER

Rear panel section



SCHEMATIC DIAGRAM 1

Display section



	R7276	R7277	R7376	R7377
MDD	YES	YES	NO	NO
MPP	NO	NO	YES	YES
MPA/MGT	NO	NO	YES	YES
MWR/MWT	YES	NO	NO	YES
MJJ	NO	YES	YES	NO

REGION	MDD,MJJ	MPP	OTHER
R7289	YES	NO	YES
R7389	NO	YES	NO
R7291	YES	YES	YES
R7391	NO	NO	NO
R7292	NO	YES	YES
R7392	YES	NO	NO

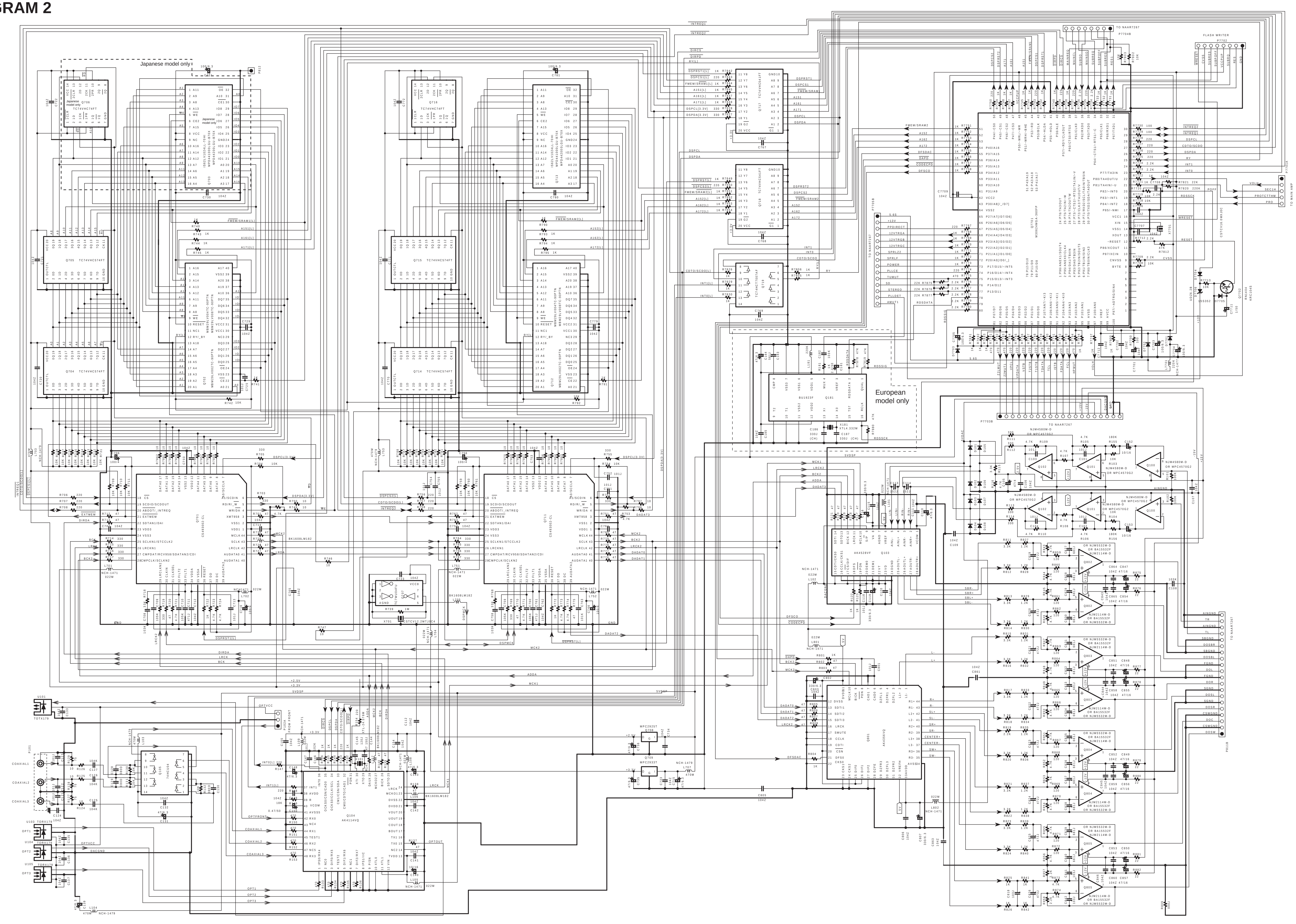
COUNTRY	MDD,MPP	OTHER
P7481	SILVER	GOLD

Model	Black	Golden	Silver
D7536	GREEN	ORANGE	OGANGE
D7537	GREEN	ORANGE	ORANGE
D7538	GREEN	ORANGE	ORANGE
D7539	GREEN	ORANGE	ORANGE

A B C D E F G H

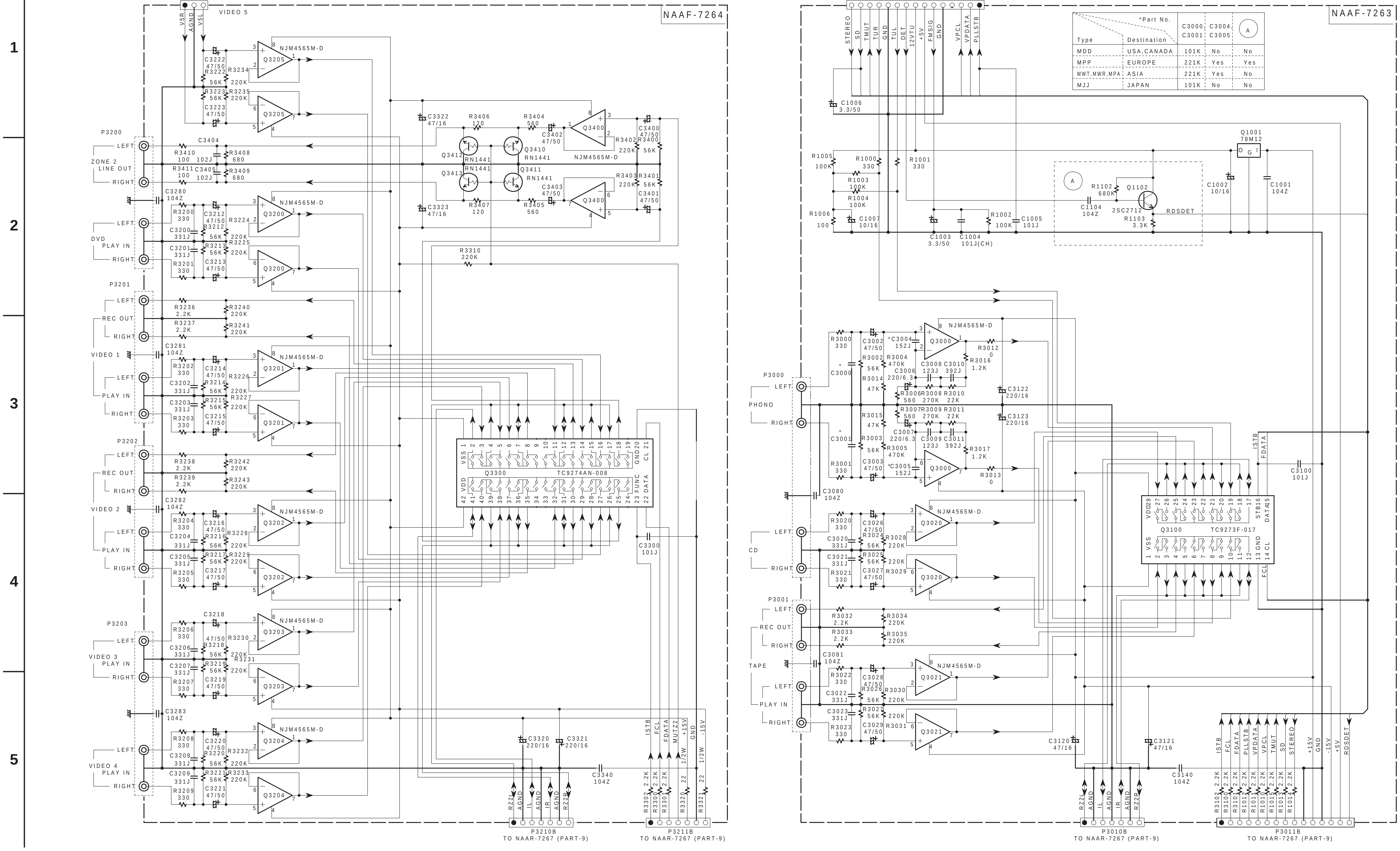
SCHEMATIC DIAGRAM 2
DSP & Main microprocessor sections

1 2 3 4 5



SCHEMATIC DIAGRAM 3

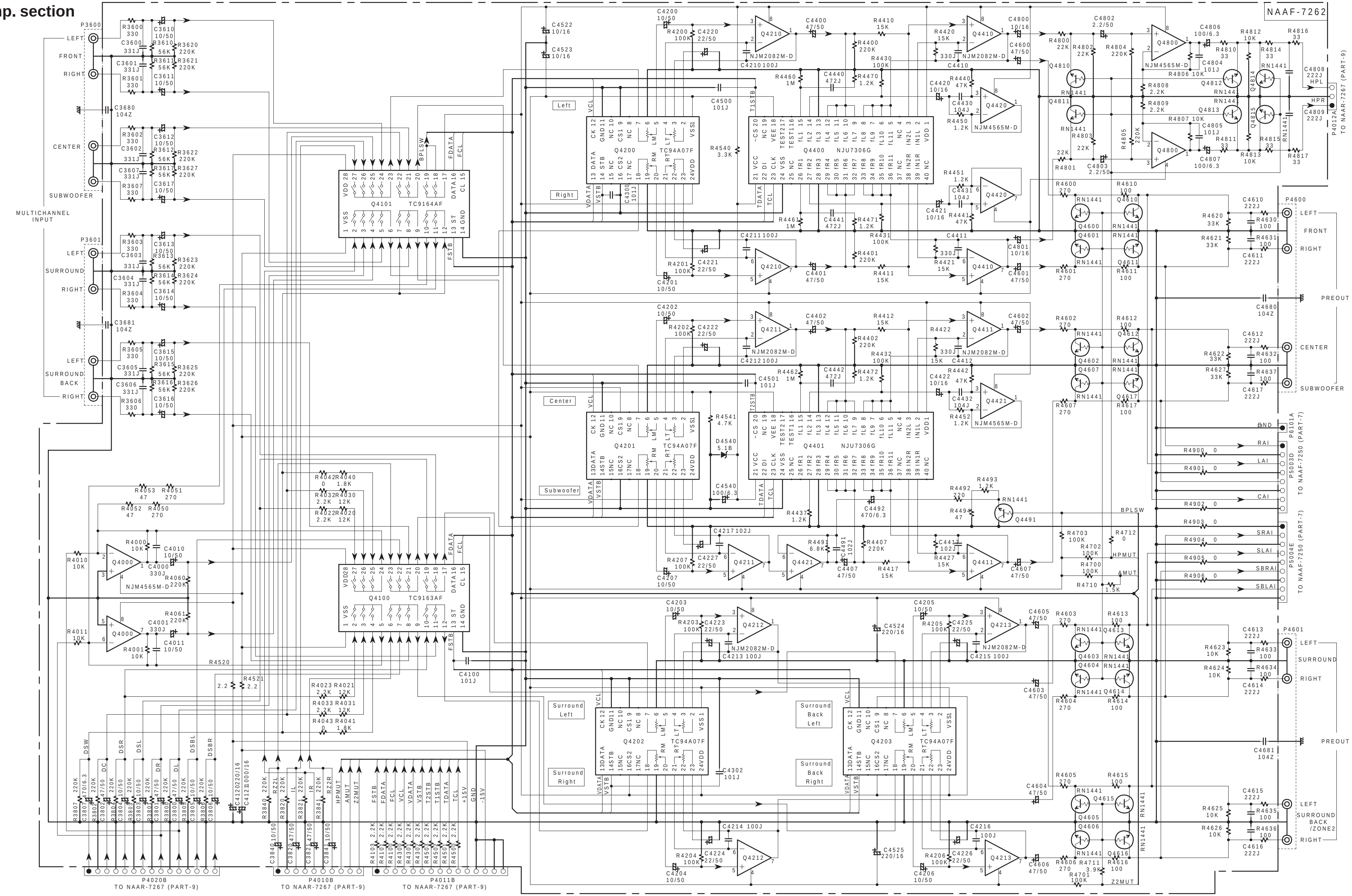
Audio I/O section



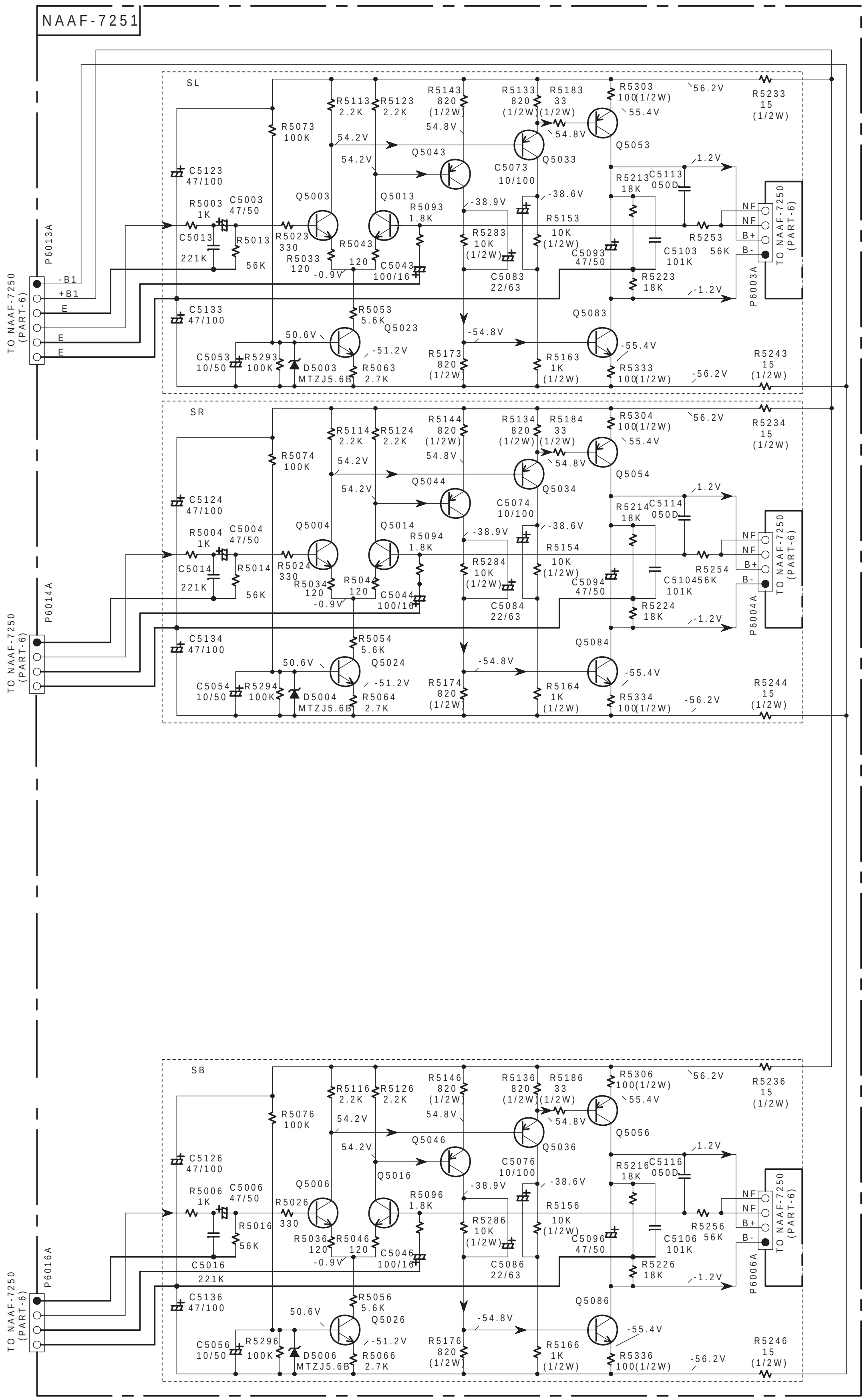
Type	Destination	*Part No. C3000 C3001	C3004 C3005	A
MDD	USA,CANADA	101K	No	No
MPP	EUROPE	221K	Yes	Yes
MWT,MWR,MPA	ASIA	221K	Yes	No
MJJ	JAPAN	101K	No	No

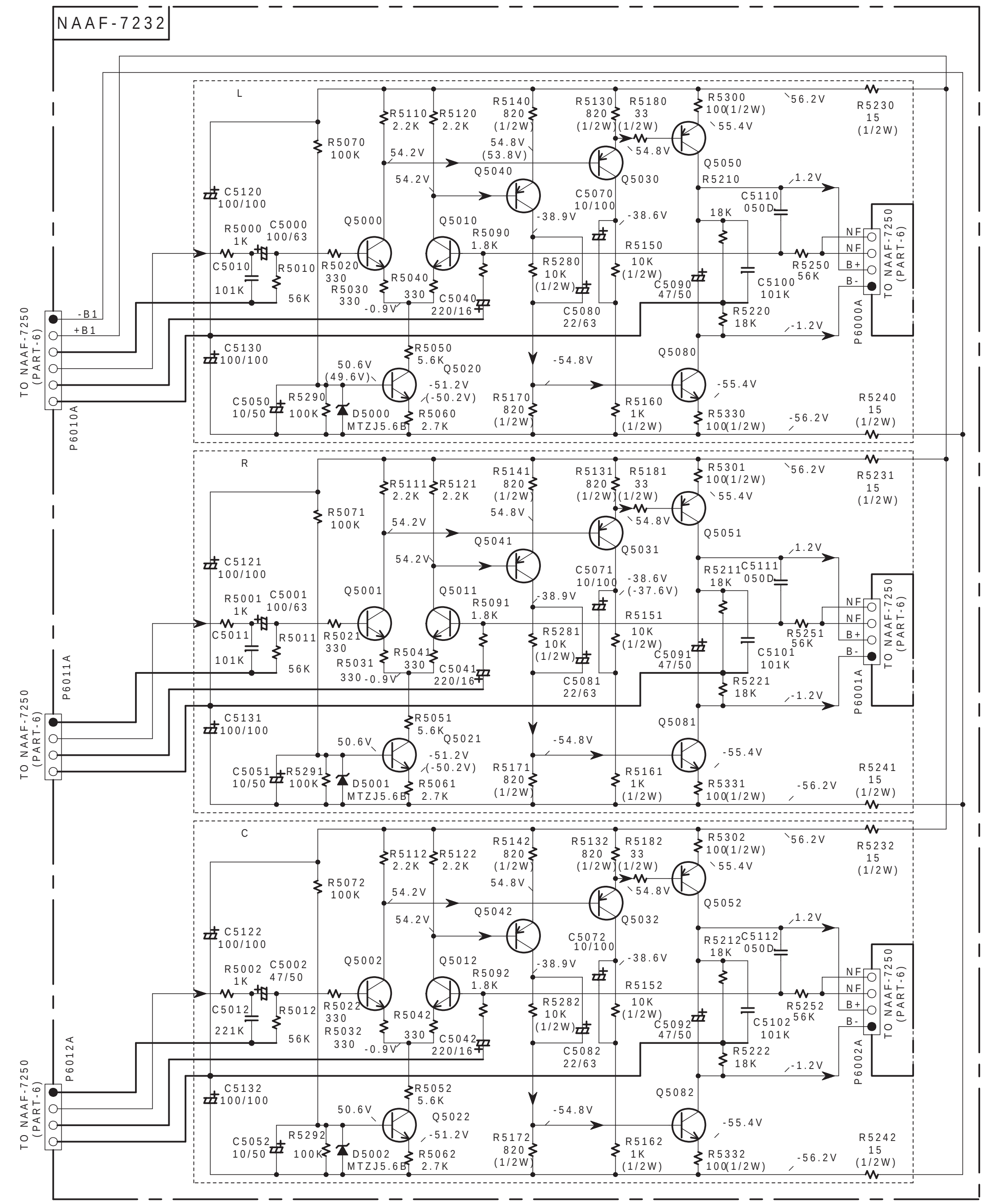
SCHEMATIC DIAGRAM 4

Preamp. section



SCHEMATIC DIAGRAM 5
Power amp.section



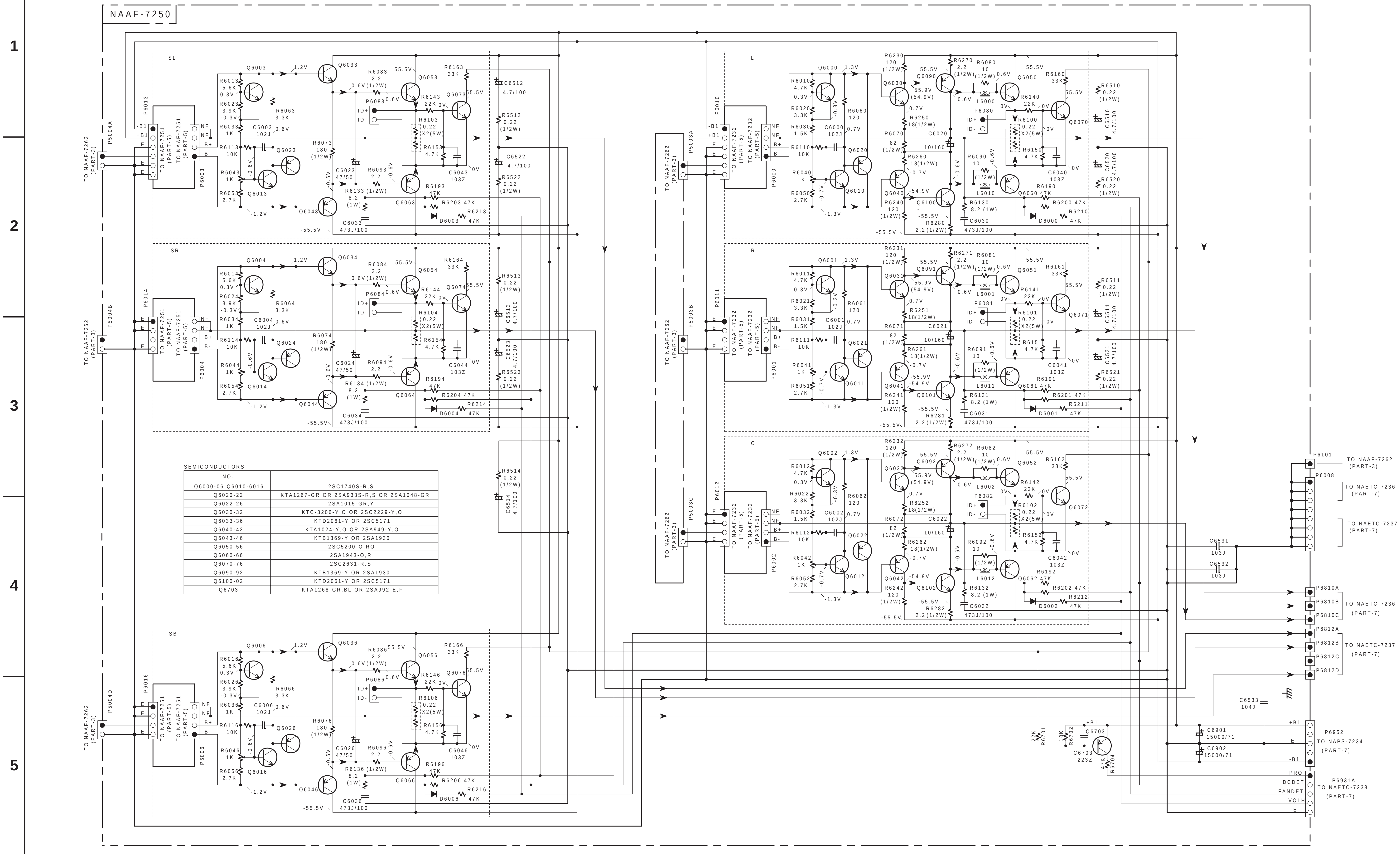


SEMICONDUCTORS

NO.	
Q5000-06,5010-16	KTC3200-BL OR 2SC1775A-E,F OR 2SC1845-E
Q5020-26	KTC3200-BL OR 2SC1775A-E,F OR 2SC1845-E
Q5030-36,5040-46,5050-56,5070-76	KTA1024-Y,O OR 2SA949-Y,O
Q5060-66,5080-86	KTC3206-Y,O OR 2SC2229-Y,O

A B C D E F G H

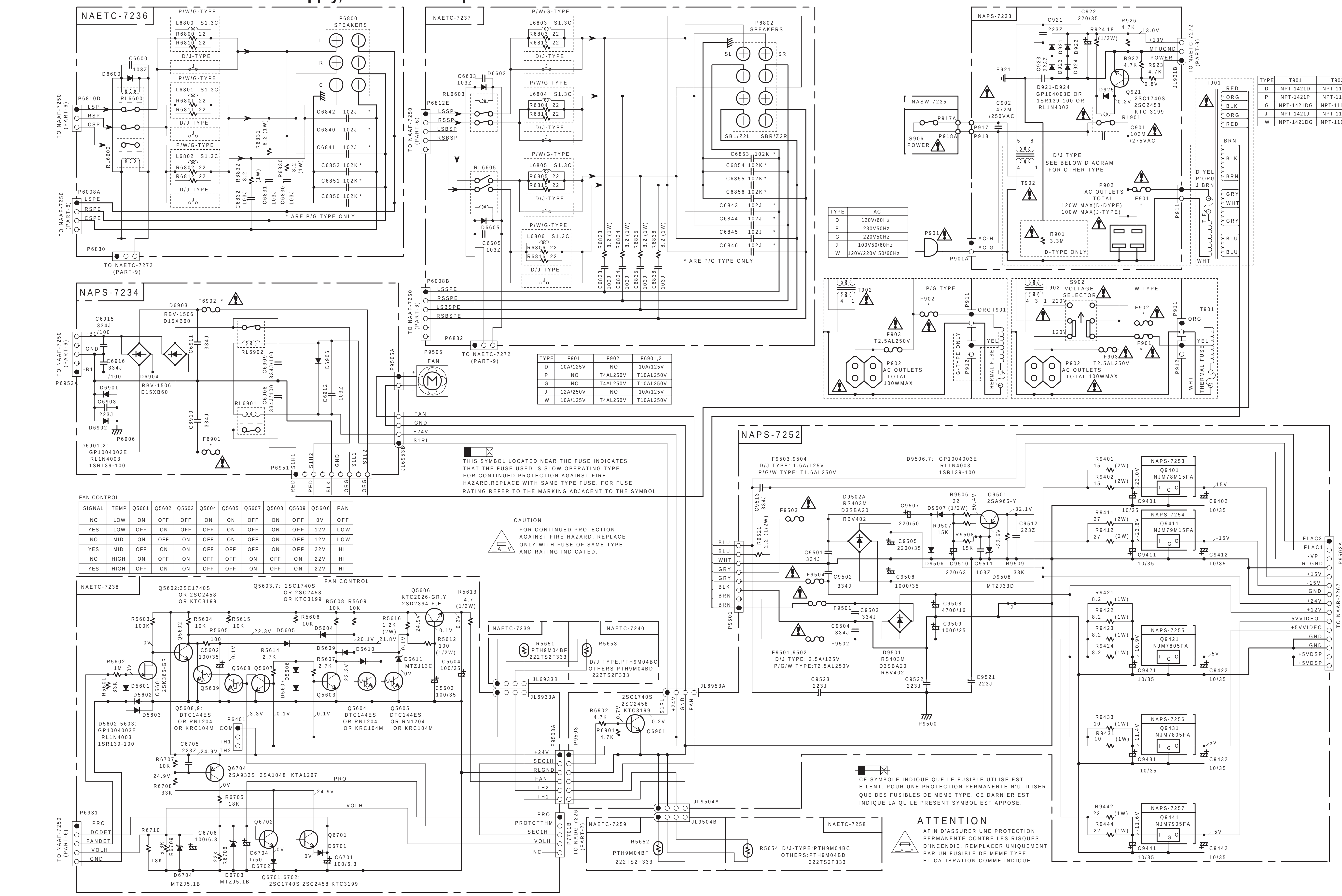
SCHEMATIC DIAGRAM 6
Power amplifier section 2



SEMICONDUCTORS

NO.	
Q6000-06,Q6010-6016	2SC1740S-R,S
Q6020-22	KTA1267-GR OR 2SA933S-R,S OR 2SA1048-GR
Q6022-26	2SA1015-GR,Y
Q6030-32	KTC-3206-Y,O OR 2SC2229-Y,O
Q6033-36	KTD2061-Y OR 2SC5171
Q6040-42	KTA1024-Y,O OR 2SA949-Y,O
Q6043-46	KTB1369-Y OR 2SA1930
Q6050-56	2SC5200-O,RO
Q6060-66	2SA1943-O,R
Q6070-76	2SC2631-R,S
Q6090-92	KTB1369-Y OR 2SA1930
Q6100-02	KTD2061-Y OR 2SC5171
Q6703	KTA1268-GR,BL OR 2SA992-E,F

SCHEMATIC DIAGRAM 7 Power supply, Fan control & Speaker terminal sections



FAN CONTROL

SIGNAL	TEMP	Q5601	Q5602	Q5603	Q5604	Q5605	Q5607	Q5608	Q5609	Q5606	FAN
NO	LOW	ON	OFF	OFF	ON	ON	OFF	ON	OFF	0V	OFF
YES	LOW	OFF	ON	OFF	OFF	ON	OFF	ON	OFF	12V	LOW
NO	MID	ON	OFF	ON	OFF	ON	OFF	ON	OFF	12V	LOW
YES	MID	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	22V	HI
NO	HIGH	ON	OFF	ON	OFF	OFF	ON	OFF	ON	22V	HI
YES	HIGH	OFF	ON	ON	OFF	OFF	ON	OFF	ON	22V	HI

TYPE	F901	F902	F6901,2
D	10A/125V	NO	10A/125V
P	NO	T4AL250V	T10AL250V
G	NO	T4AL250V	T10AL250V
J	12A/250V	NO	10A/125V
W	10A/125V	T4AL250V	T10AL250V

TYPE	AC
D	120V/60Hz
P	230V50Hz
G	220V50Hz
J	100V50/60Hz
W	120V/220V 50/60Hz

TYPE	T901	T902
D	NPT-1421D	NPT-1111D
P	NPT-1421P	NPT-1111P
G	NPT-1421DG	NPT-1111DG
J	NPT-1421J	NPT-1111J
W	NPT-1421DG	NPT-1111DG

THIS SYMBOL LOCATED NEAR THE FUSE INDICATES THAT THE FUSE USED IS SLOW OPERATING TYPE FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,REPLACE WITH SAME TYPE FUSE. FOR FUSE RATING REFER TO THE MARKING ADJACENT TO THE SYMBOL

CAUTION

FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH FUSE OF SAME TYPE AND RATING INDICATED.

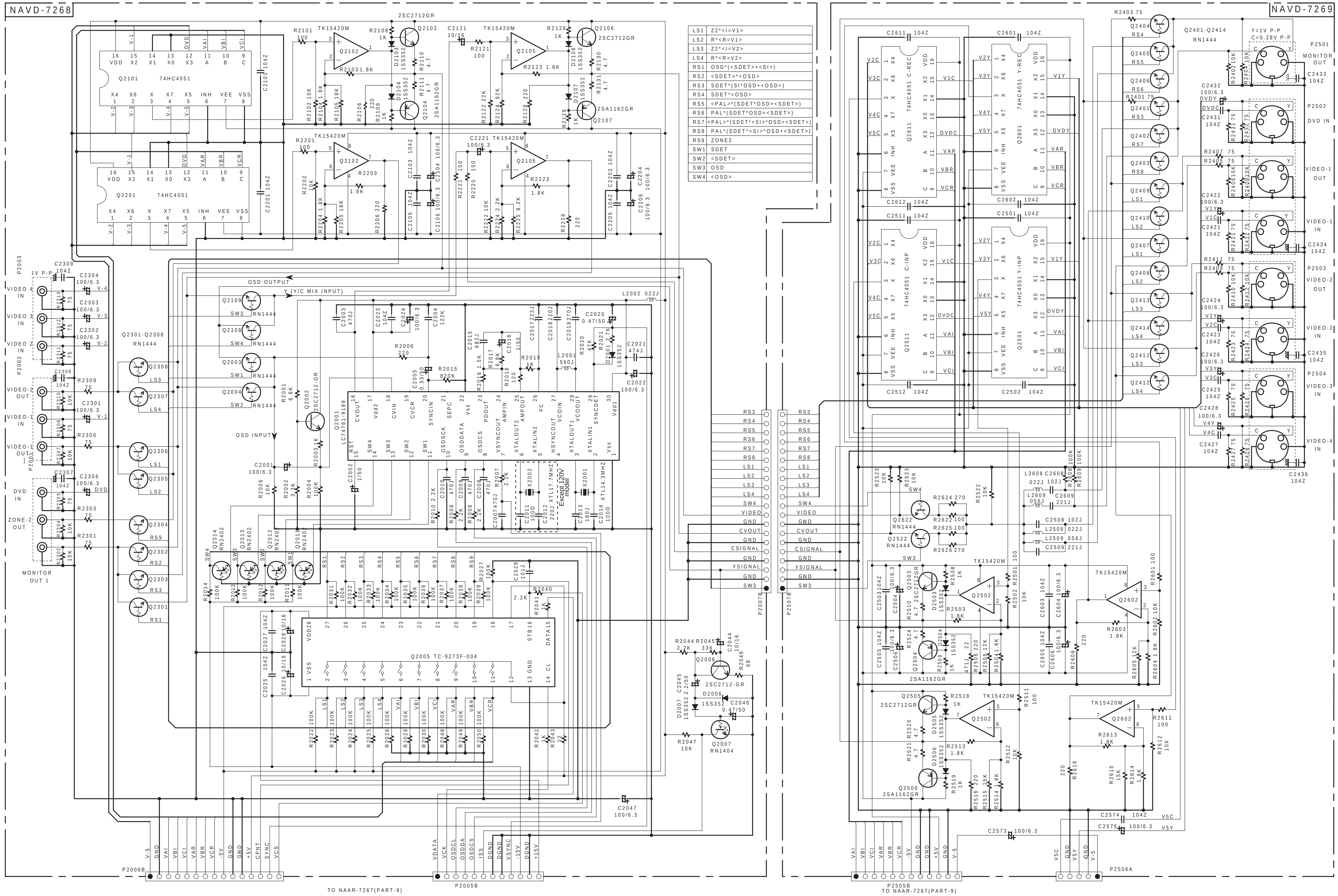
CE SYMBOLE INDIQUE QUE LE FUSIBLE UTLISE EST E LENT. POUR UNE PROTECTION PERMANENTE,N'UTILISER QUE DES FUSIBLES DE MEME TYPE. CE DARNIER EST INDIQUE LA QU LE PRESENT SYMBOL EST APPOSE.

ATTENTION

AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET CALIBRATION COMME INDIQUE.

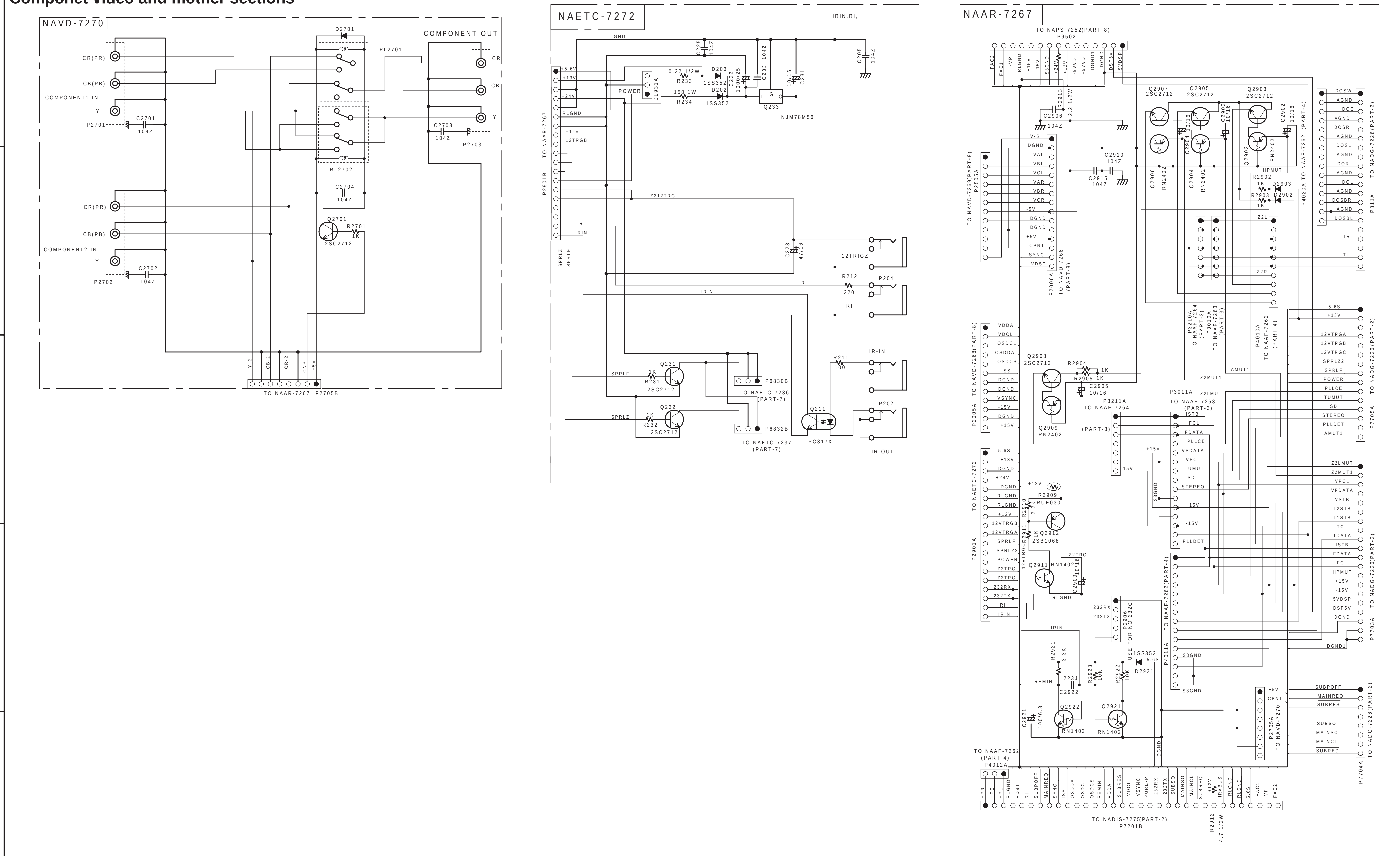
SCHEMATIC DIAGRAM 8

Video section



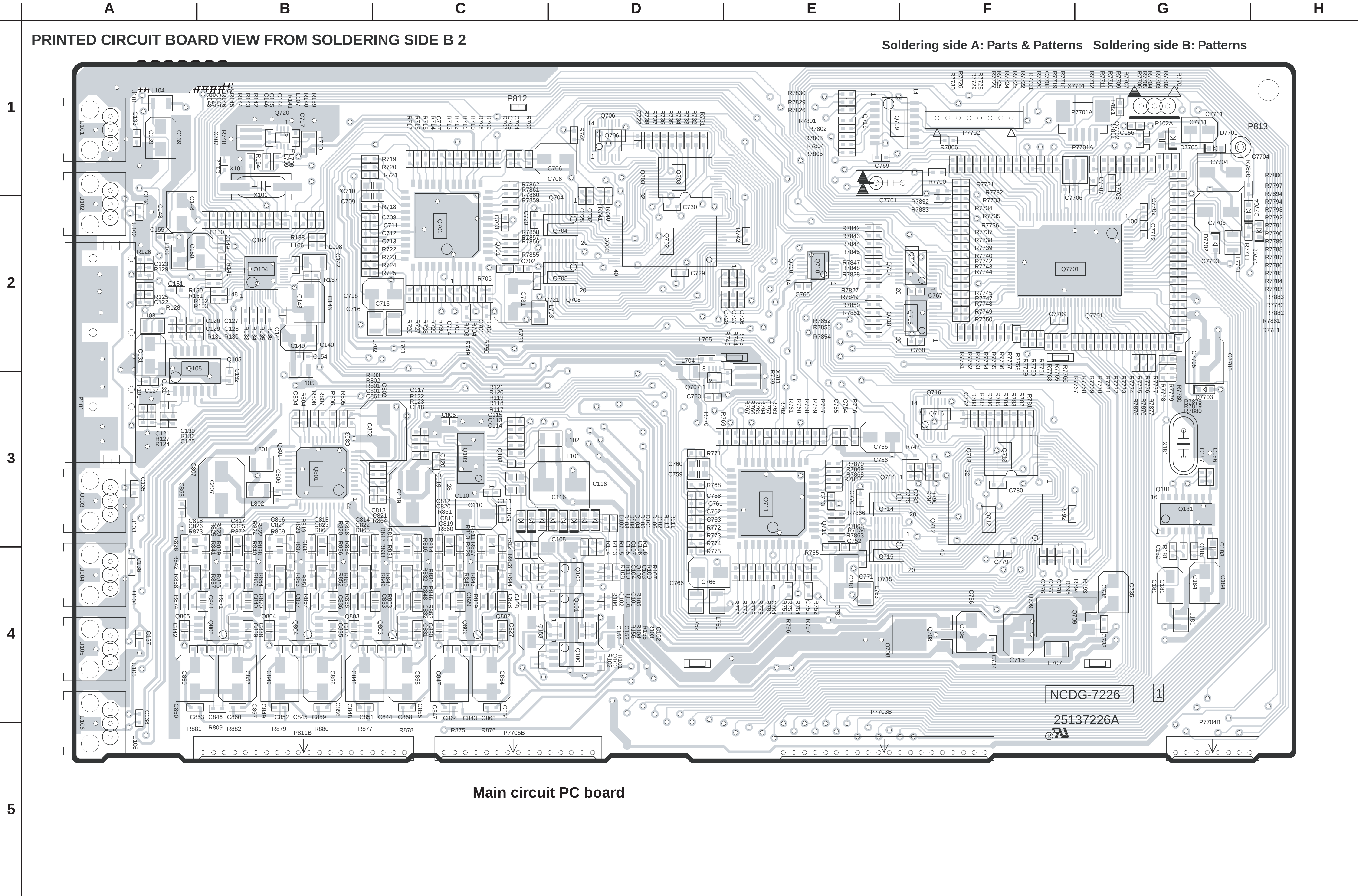
SCHEMATIC DIAGRAM 9

Componet video and mother sections



PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE B 2

Soldering side A: Parts & Patterns   Soldering side B: Patterns



Main circuit PC board

A B C D E F G H

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 3

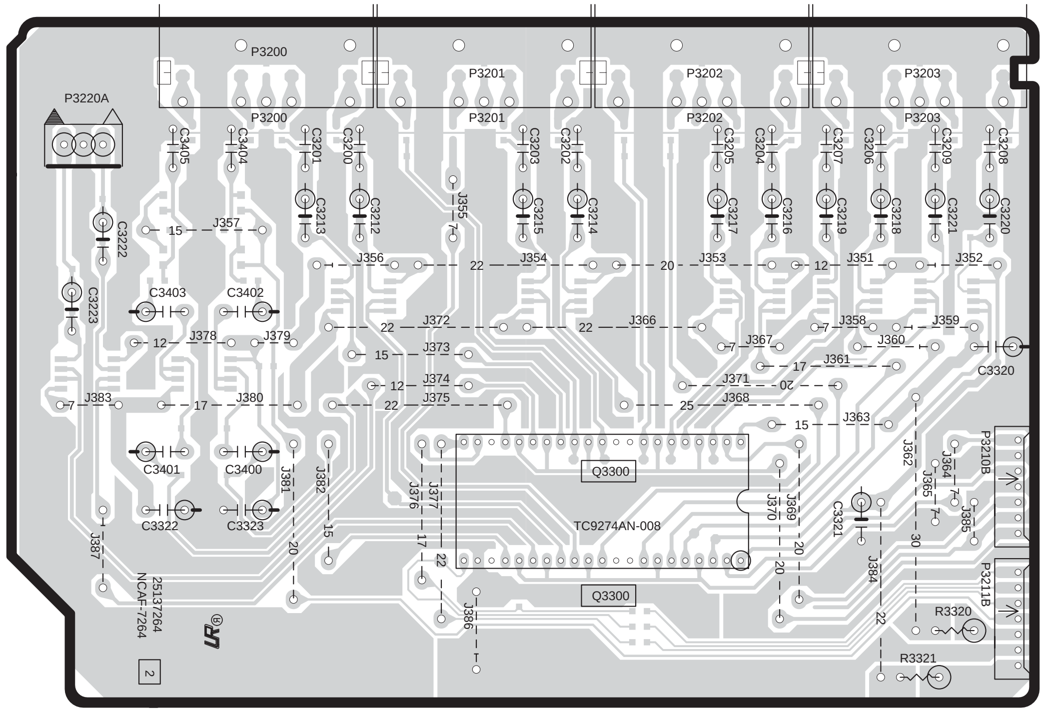
1

2

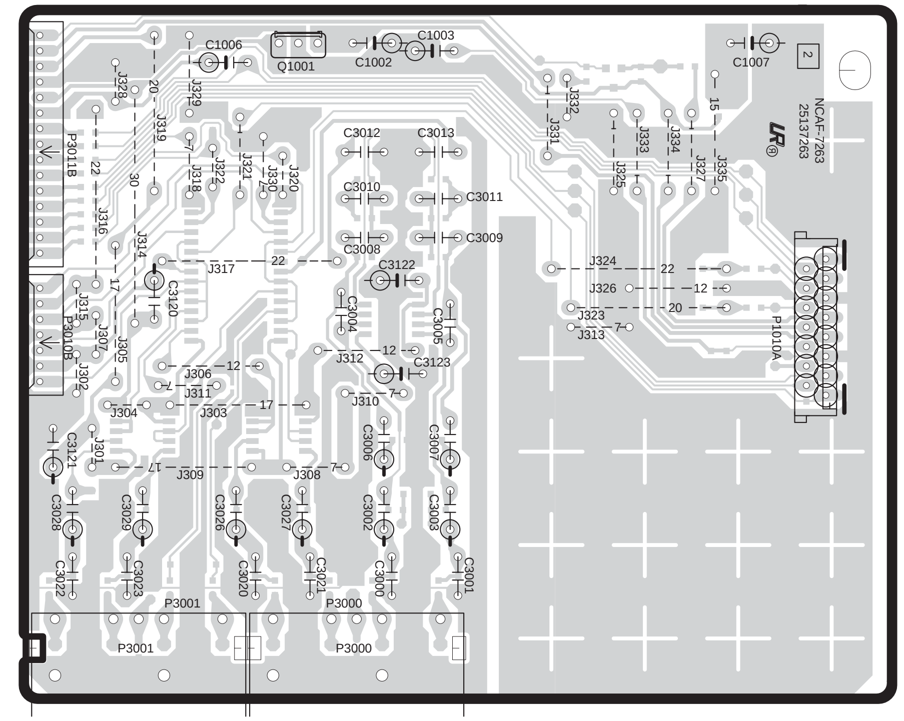
3

4

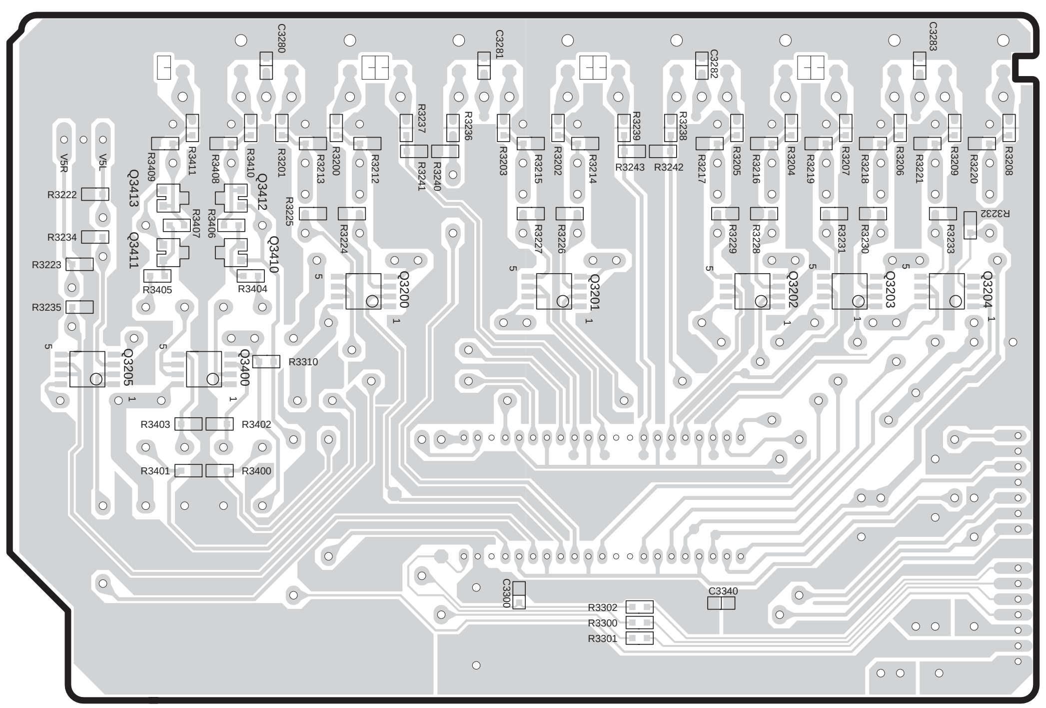
5



Component side

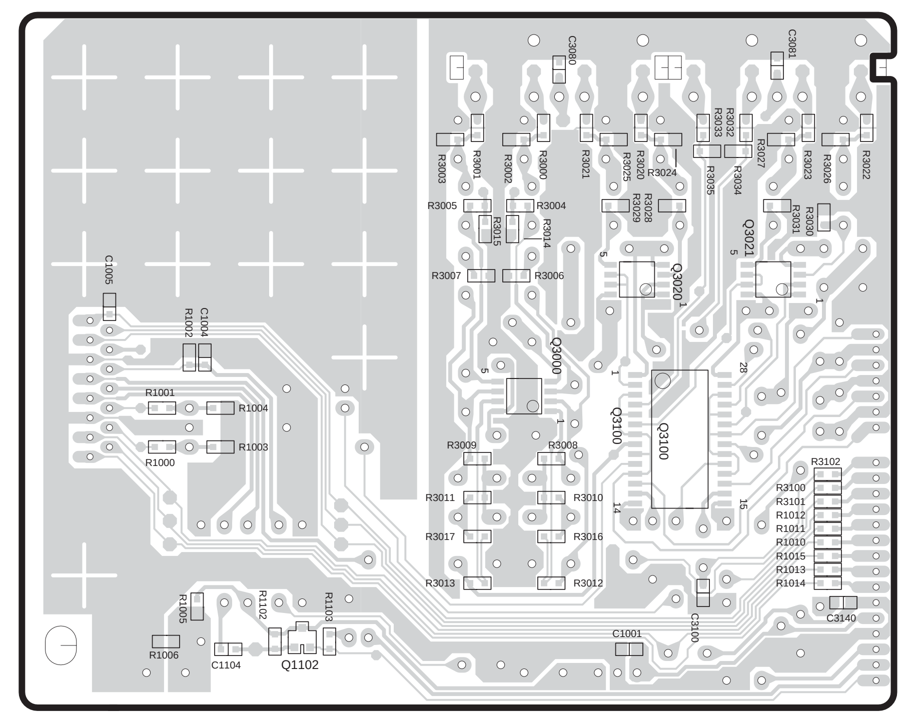


Component side



Soldering side

Video terminal PC board

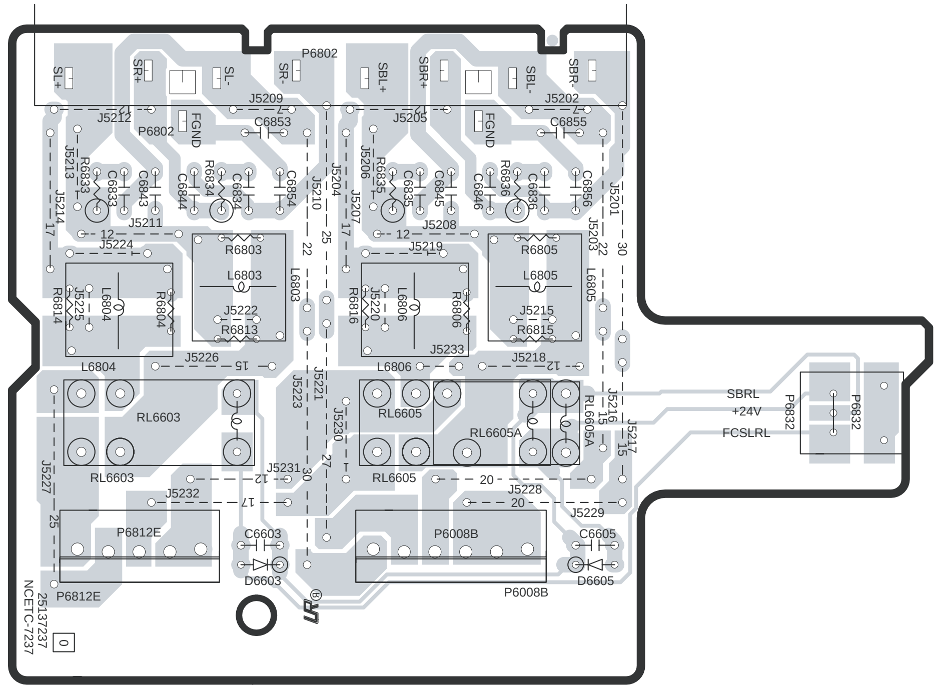


Soldering side

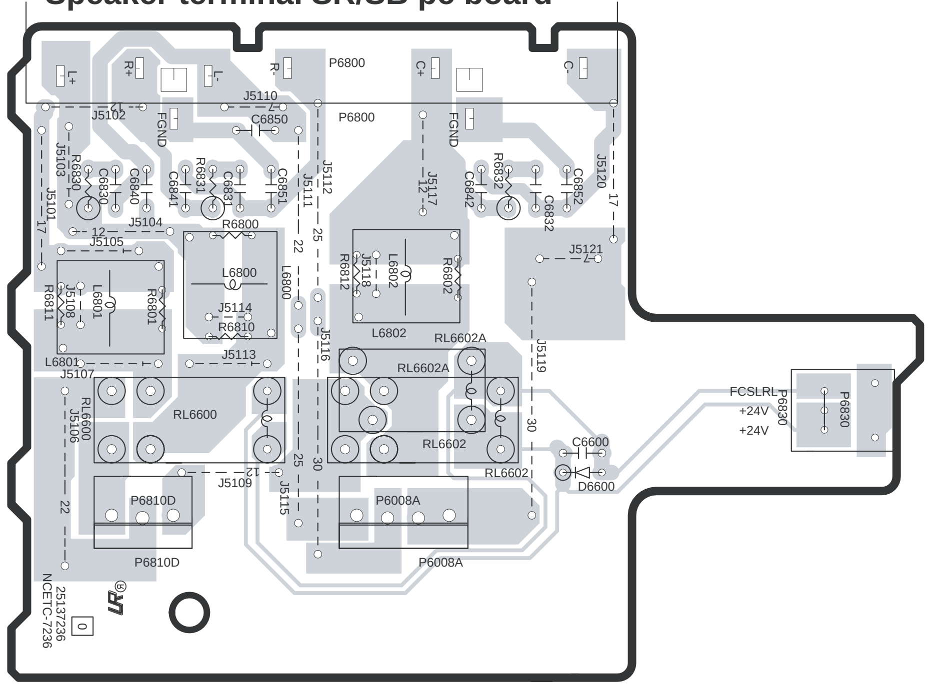
Audio terminal PC board

A B C D E F G H

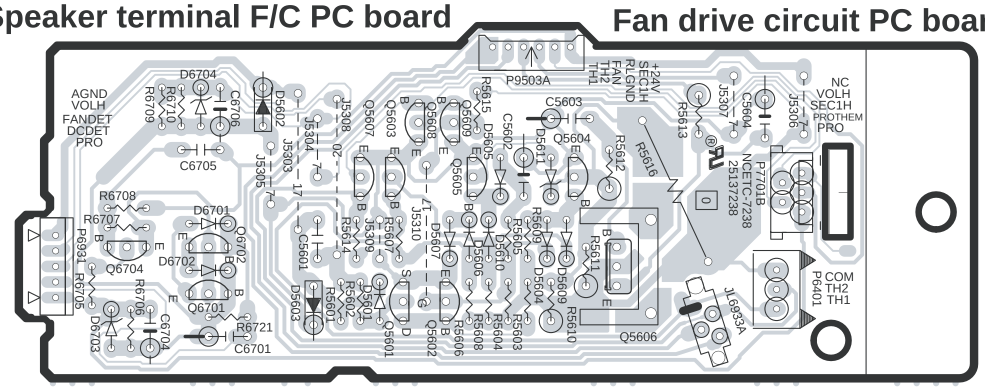
PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 7



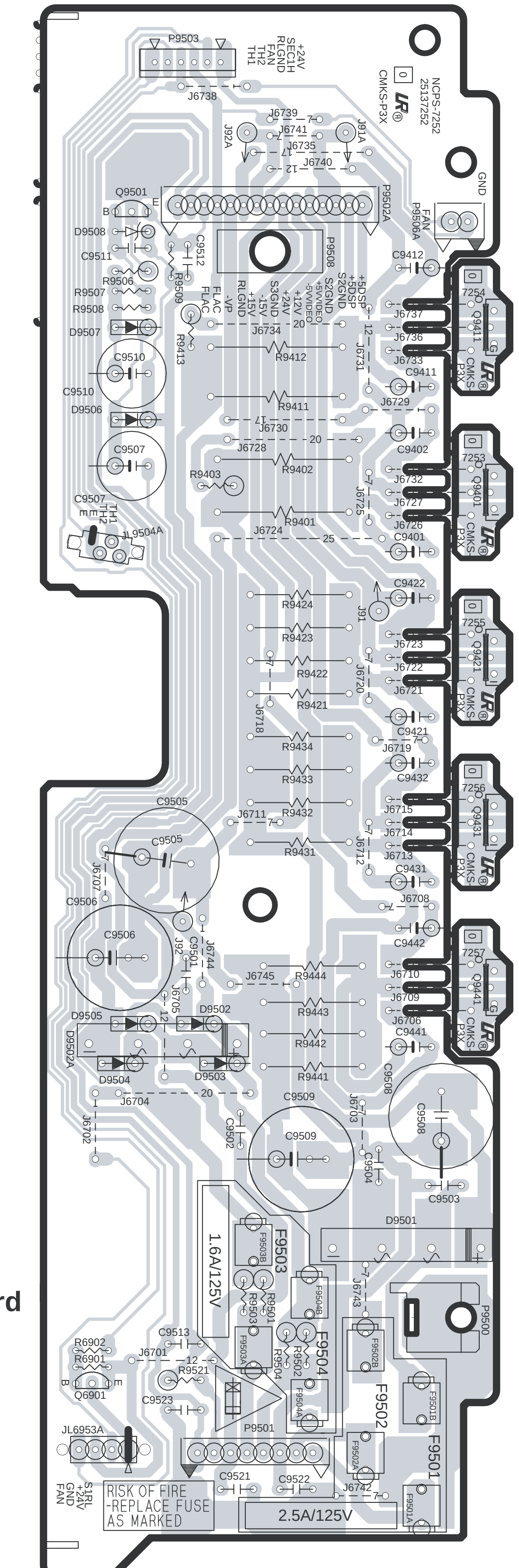
Speaker terminal SR/SB pc board



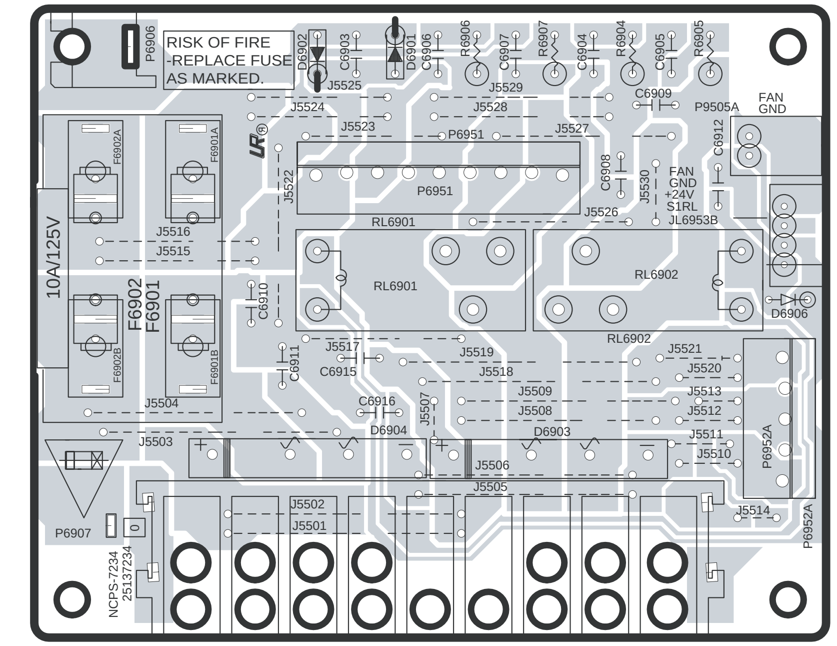
Speaker terminal F/C PC board



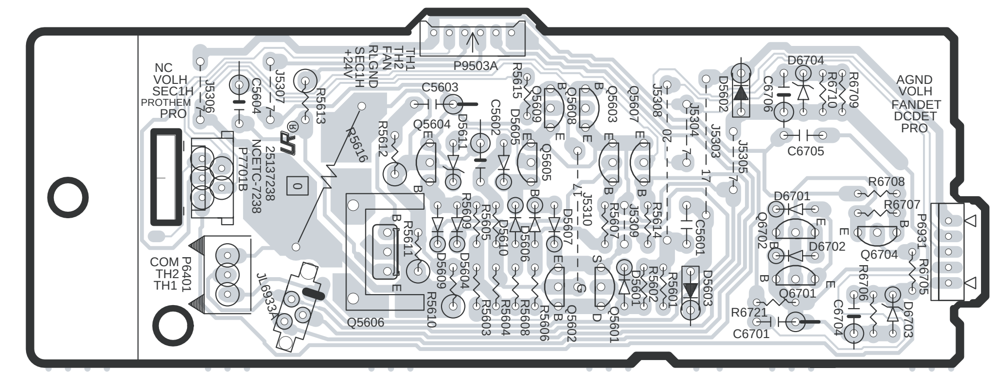
Fan drive circuit PC board



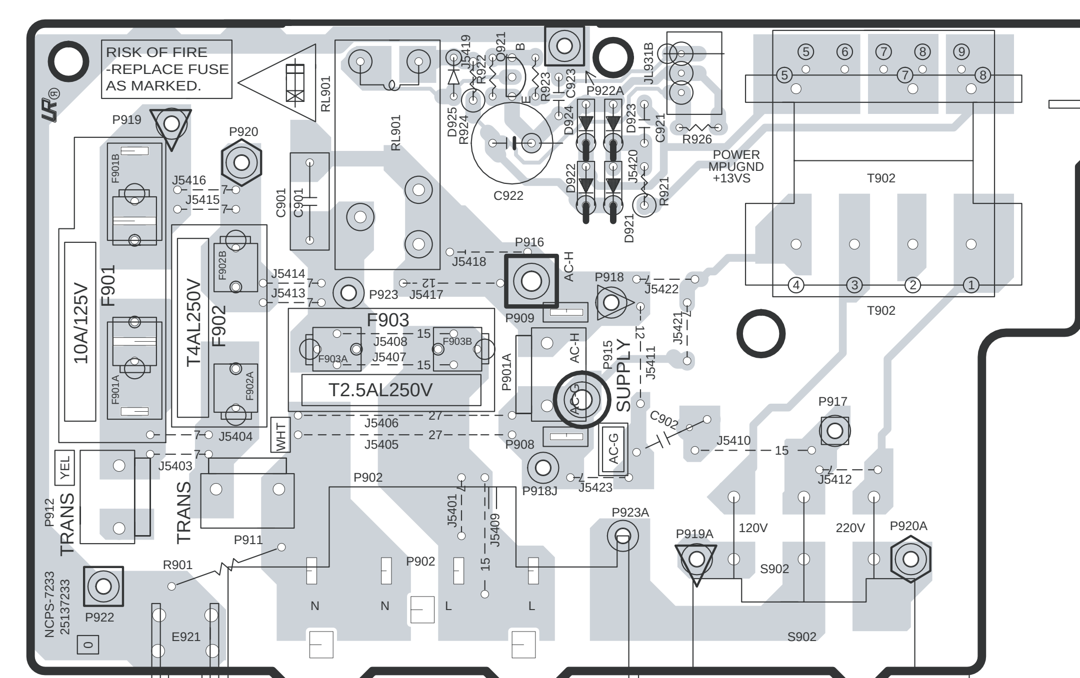
Power supply circuit PC board



Rectifier circuit PC board



Fan drive circuit PC board



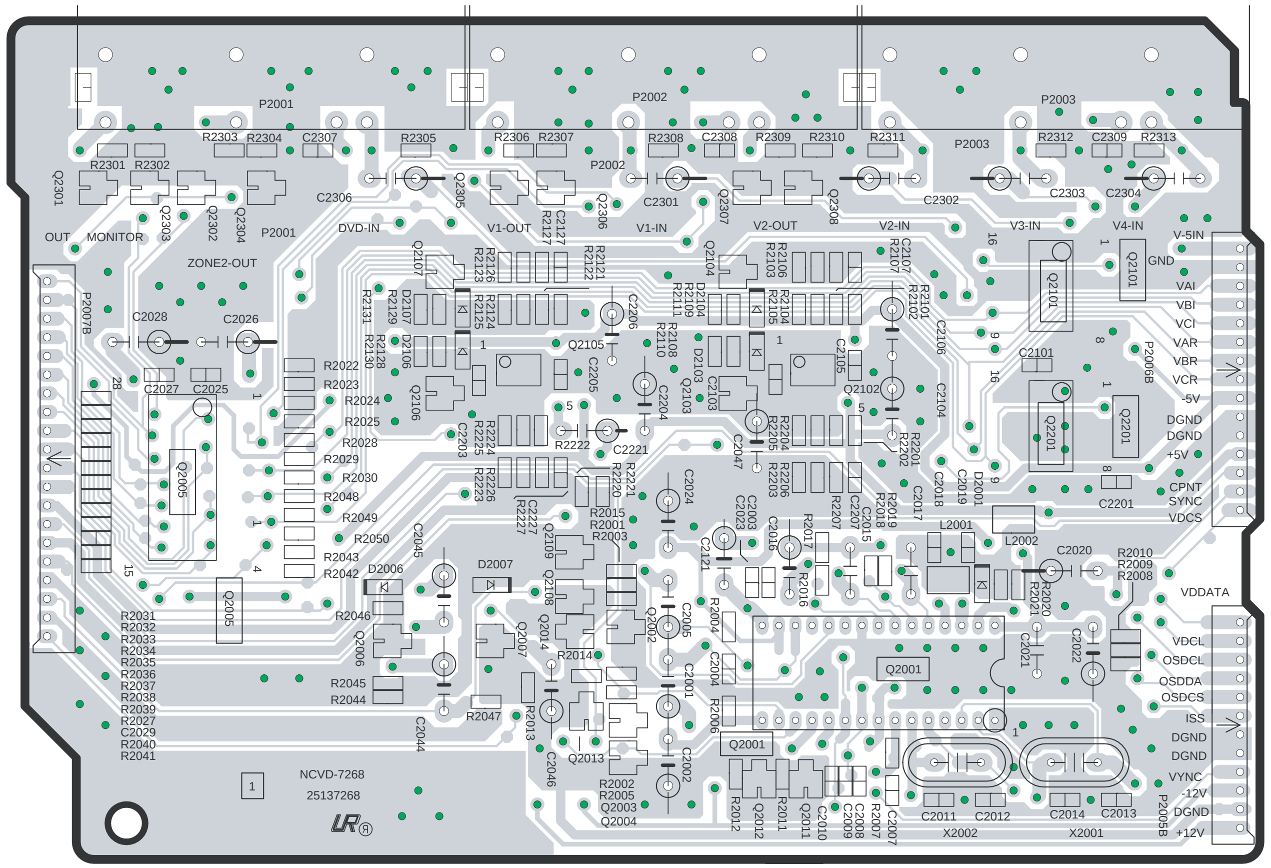
Primary circuit PC board

1 2 3 4 5

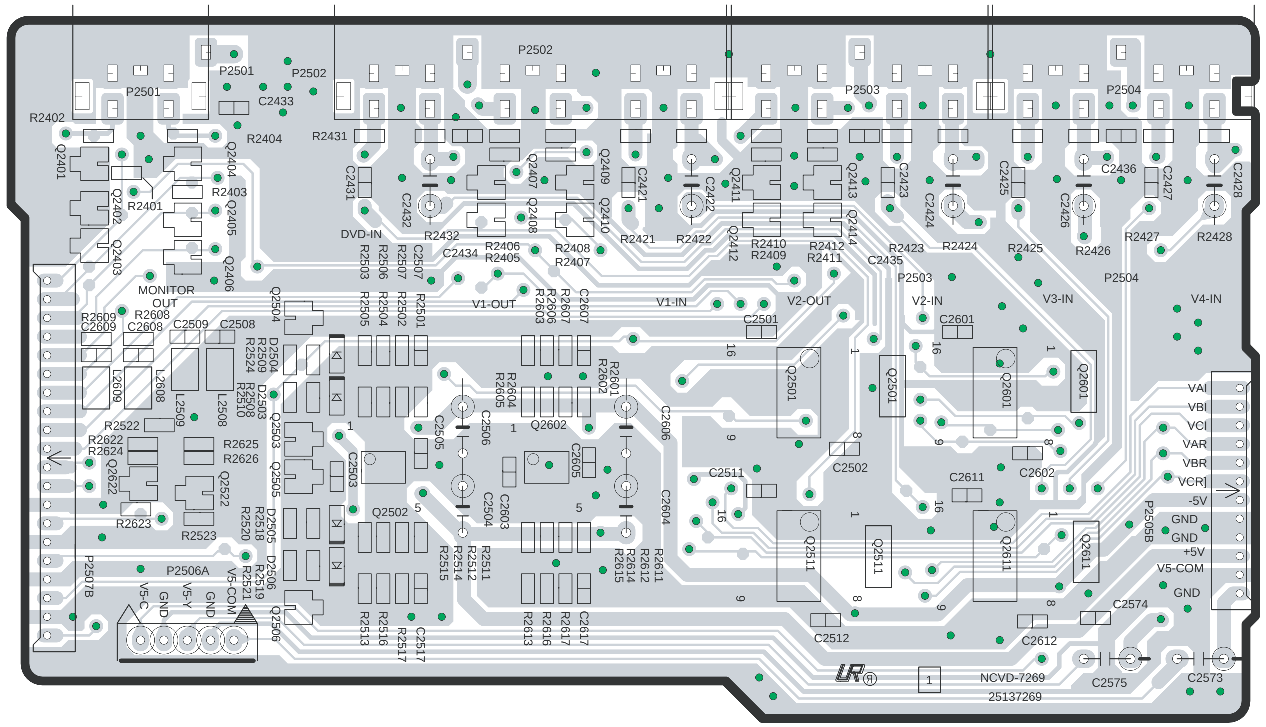
A B C D E F G H

1 2 3 4 5

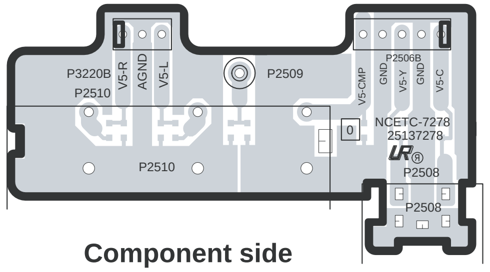
PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 8



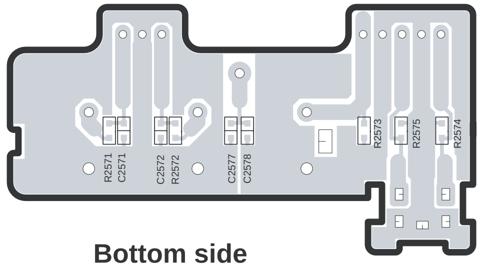
Composite video circuit PC board



S video circuit PC board

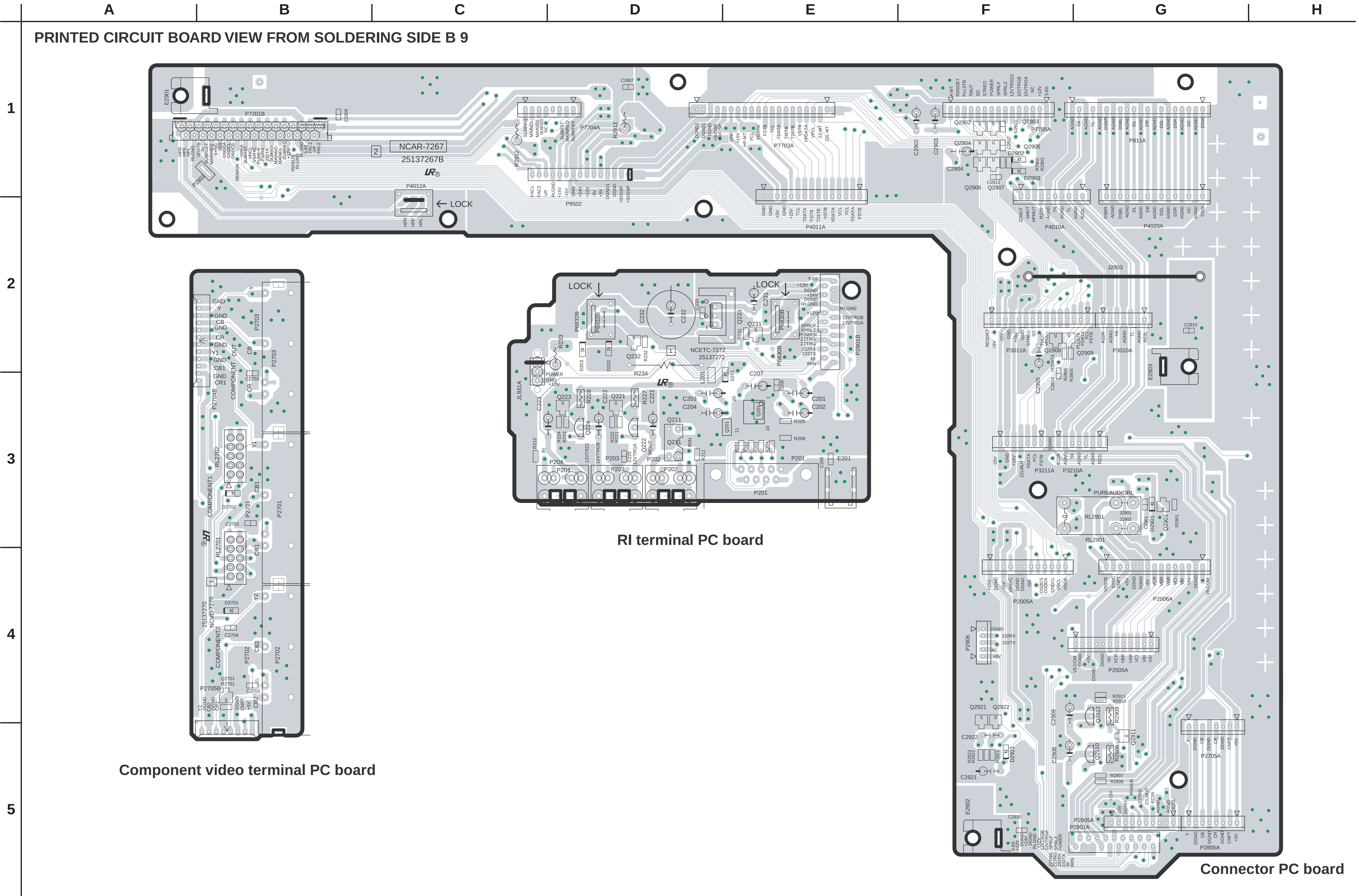


Component side



Bottom side

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE B 9



A B C D E F G H

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 1

Display section

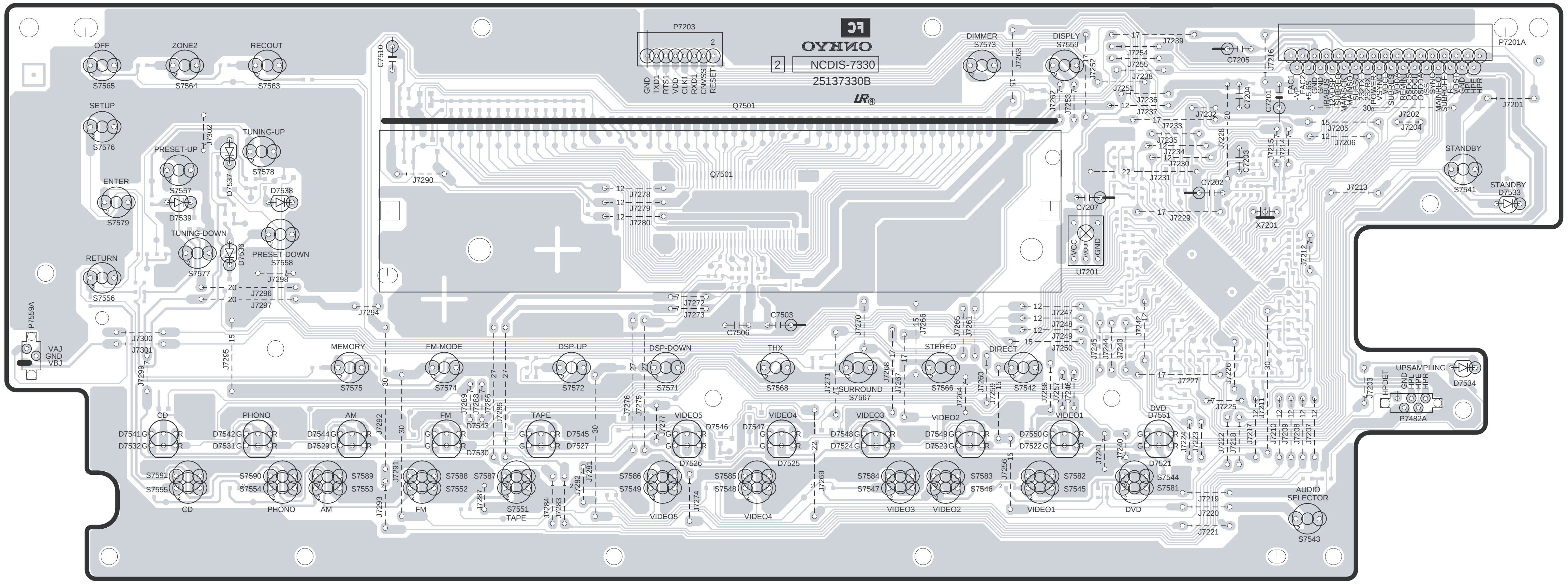
1

2

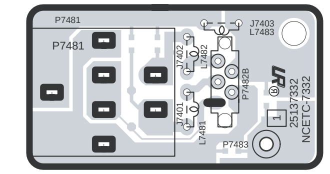
3

4

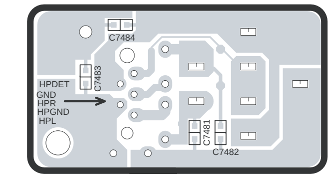
5



Component side

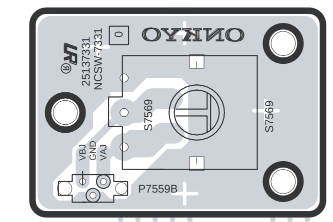


Component side

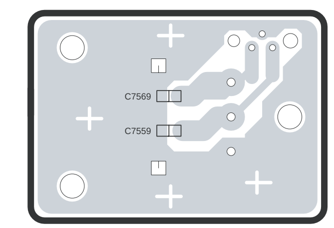


Soldering side

Headphone terminal PC board



Component side



Soldering side

Volume PC board

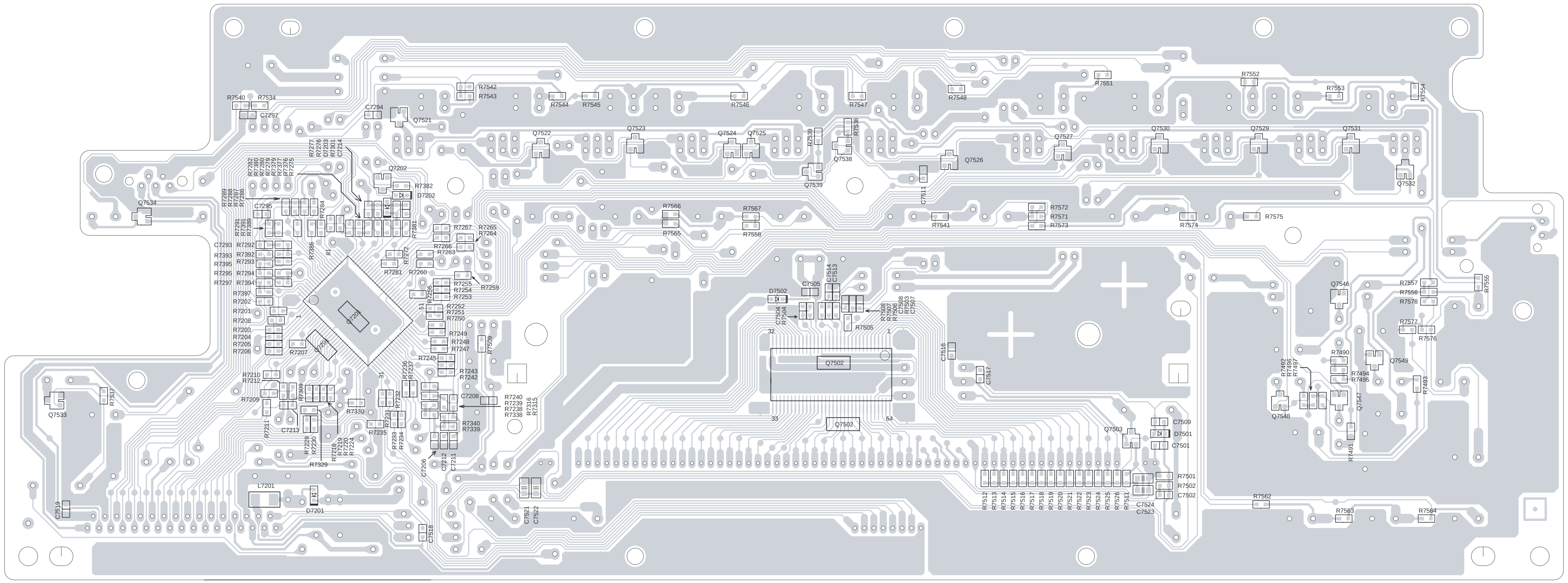
A B C D E F G H

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 1

Display section

1

2



3

Soldering side Display circuit PC board

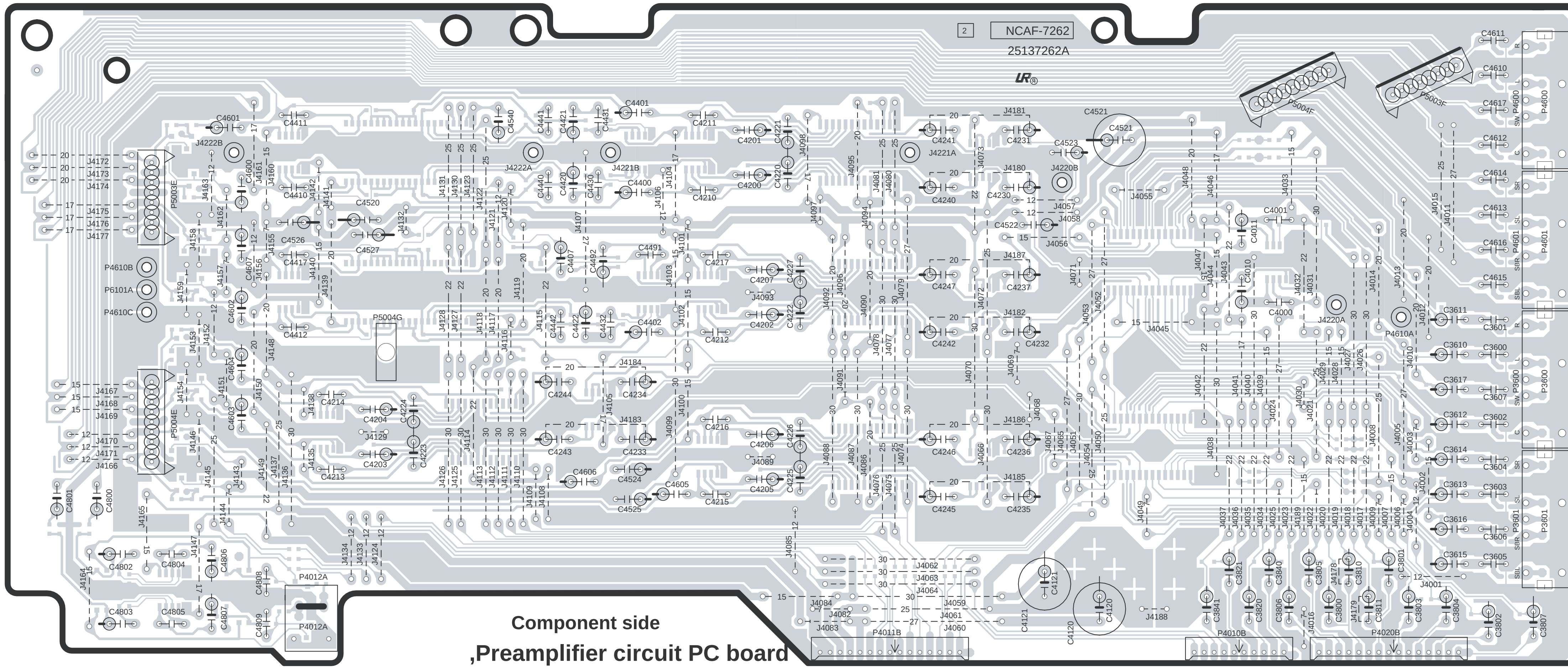
4

5

A B C D E F G H

1 2 3 4 5

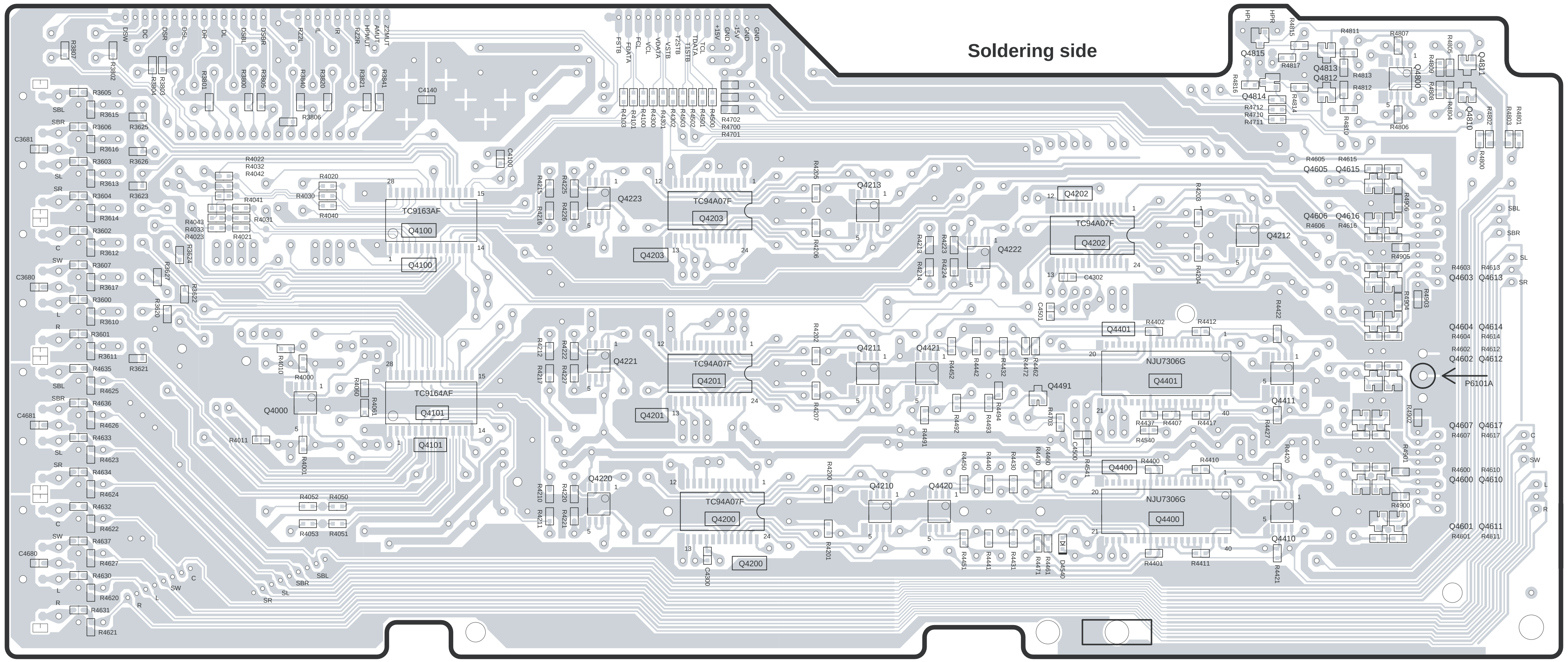
PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 4



Component side

,Preamplifier circuit PC board

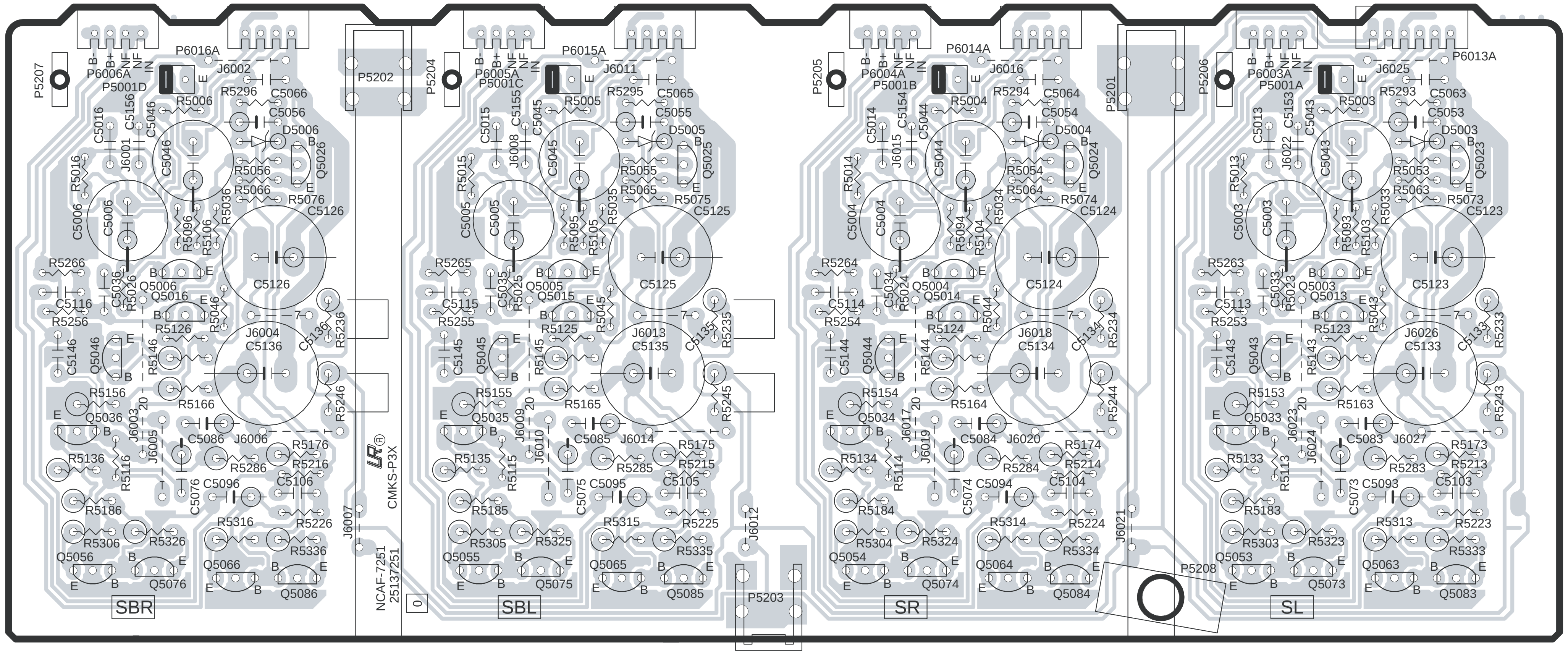
PRINTED CIRCUIT BOARD
FROM SOLDERING SIDE 4



,Preamplifier circuit PC board

A	B	C	D	E	F	G	H

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 5



Power amplifier driver PC board 2

PRINTED CIRCUIT BOARD-PARTS LIST 1

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (HFE) as the original type.

MAIN CIRCUIT PC BOARD (NADG-7226-1N/1O/1R)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q100-Q102	22241448R2	NJM4580M-D
Q103	22241522R2	AK4528VF
Q104	22241633R3	AK4114VQ
Q105	222740046R2TO	TC74HCU04F
Q181	22241297R2	BU1923F <P>
Q701	22241731R9	CS493002-CL(PL2/ES/NEO)
Q702,Q712	22241458R3,	MBM29LV002TC-90PTN,
	22241457R3 or	MBM29LV004TC-90PTN or
	22241530R3	MBM29LV008TA-90PTN
Q704,Q705	22274574ER2TO	TC74VHC574FT
Q707	22240935R2	TC7WU04FU
Q708	22278025DR2NE	MPC2925T
Q709	22278033DR2NE	MPC2933T
Q711	22241456R9	CS493002-CL
Q713	22241517R3,	MPD441000LGU-B70X,
	22241459R3 or	MPD442000LGU-B70X or
	22241742R2	IS62LV1024LL-70H
Q714,Q715	22274574ER2TO	TC74VHC574FT
Q716	22274074ER2TO	TC74VHC74FT
Q717,Q718	22274541ER2TO	TC74VHC541FT
Q719	222740077R2TO	TC74HCT7007AF
Q7701	22241758R3 or	M30624MGA-364FP or
	22241512	M30624FGAFP:(NSP)
Q801	22241521R3	AK4356VQ
Q802-Q805	22241449R2,	NJM5532M-D,
	22241409R2 or	BA15532F or
	22241472R2	NJM2114M-D
	Transistor	
Q7702	2216210R2 or	KRC104S or
	2214490R2	RN1404
	Photo couplers	
U101	24120094	TOTX179
U103-U105	24120095	TORX179
	Diodes	
D101-D108	223234R2 or	1SS352 or
D7701-D7705	223269R2	1SS355
D7706	224490620R2 or	UDZ6.2B or
	224550620R2	UDZS6.2B
	Oscillators	
X101	3010331R2	HC-49/U03C24,576MHz,Crystal
X181	3010203 or	AF6146CG or
	3010345	HQS-3H2-04332-20 <P>
X701	3010324R2	CSTCV12,2MTJ0C4,Ceramic
X7701	3010329R2	CSTCV16,00MXJ0C,Ceramic
	Coils	
L101,L102	231237M022R2	NCH-1471
L103,L104	231237K470R2	NCH-1479
L105	231237M022R2	NCH-1471
L106,L107	230958R1	BK1608LM182-T
L108,L109	231237M022R2	NCH-1471
L181	231237K220R2	NCH-1477 <P>
L701,L702	231237M022R2	NCH-1471
L703,L707	231237K470R2	NCH-1479
L704	231237M022R2	NCH-1471
L705,R729	230958R1	BK1608LM182-T

CIRCUIT NO.	PART NO.	DESCRIPTION
	Coils	
L751,L752	231237M022R2	NCH-1471
L753	231237K470R2	NCH-1479
L7701	231237K220R2	NCH-1477
L801,L802	231237M022R2	NCH-1471
	Capacitors	
C105	3567A4709R2	47uF,4V,Elect.
C110	356724709R2	47uF,6.3V,Elect.
C116,C119	356723319R2	330uF,6.3V,Elect.
C131,C139	356724709R2	47uF,6.3V,Elect.
C140	356741009R2	10uF,16V,Elect.
C143,C148	356724709R2	47uF,6.3V,Elect.
C150	356784799R2	0.47uF,50V,Elect.
C152,C153	356741009R2	10uF,16V,Elect.
C181	356780229R2	2.2uF,50V,Elect. <P>
C184	356724709R2	47uF,6.3V,Elect. <P>
C706,C716	3567A1019R2	100uF,4V,Elect.
C715	356724709R2	47uF,6.3V,Elect.
C731	356721019R2	100uF,6.3V,Elect.
C735,C736	356724709R2	47uF,6.3V,Elect.
C756,C766	3567A1019R2	100uF,4V,Elect.
C7701	3000078	DX-5R5L104,Super for memory
C7703-C7705	356721019R2	100uF,6.3V,Elect.
C7711	356780109R2	1uF,50V,Elect.
C781	356721019R2	100uF,6.3V,Elect.
C802,C807	356723319R2	330uF,6.3V,Elect.
C847-C850	356744709R2	47uF,16V,Elect.
C854-C857	356744709R2	47uF,16V,Elect.
	Terminal	
P101	25045666	NPJ-3PDO465
	Sockets	
P7701A	25052277R2	NSCT-5P2174
P7703B,P811B	25051241	NSCT-20P1031
P7704B	25051233	NSCT-8P1023
P7705B	25051240	NSCT-15P1030
	Plug	
P102AA	25055133	NPLG-3P117

F/C DRIVER CIRCUIT PC BOARD (NAAF-7232-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.		DESCRIPTION
	Transistors		
Q5000-Q5002	2215896,	*	KTC3200-BL,
Q5010-Q5012	2210755,	*	2SC1775A-E,
	2210756 or	*	2SC1775A-F or
	2211733	*	2SC1845-E
Q5020-Q5022	2215896,		KTC3200-BL,
	2210755,		2SC1775A-E,
	2210756 or		2SC1775A-F or
	2211733		2SC1845-E
Q5030-Q5032	2215844,		KTA1024-Y,
Q5040-Q5042	2211353,		2SA949-O,
Q5050-Q5052	2211354 or		2SA949-Y or
	2215843		KTA1024-O
Q5080-Q5082	2215854,		KTC3206-Y,
	2211633,		2SC2229-O,
	2211634 or		2SC2229-Y or
	2215853		KTC3206-O

NOTE: <P>:European model only (NSP): No spare parts

PRINTED CIRCUIT BOARD-PARTS LIST 2

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diodes	
D5000-D5002	224470562	MTZJ5.6B
	Capacitors	
C5000,C5001	393371017	100uF,63V,Elect.
C5002	393384707	47uF,50V,Elect.
C5010,C5011	374721015	100pF+/-10%,50V,Plastic
C5012	374722215	220pF+/-10%,50V,Plastic
C5040-C5042	393342217	220uF,16V,Elect.
C5050-C5052	354781009	10uF,50V,Elect.
C5070-C5072	354791009	10uF,100V,Elect.
C5080-C5082	354772209	22uF,63V,Elect.
C5090-C5092	354784709	47uF,50V,Elect.
C5100-C5102	374721015	100pF+/-10%,50V,Plastic
C5120-C5122	354791019	100uF,100V,Elect.
C5130-C5132	354791019	100uF,100V,Elect.
	Resistors	
R5130-R5132	443528214	820ohm+/-5%,1/2W,Metal oxide
R5140-R5142	443528214	820ohm+/-5%,1/2W,Metal oxide
R5150-R5152	443521034	10kohm+/-5%,1/2W,Metal oxide
R5160-R5162	443521024	1kohm+/-5%,1/2W,Metal oxide
R5170-R5172	443528214	820ohm+/-5%,1/2W,Metal oxide
R5180-R5182	443523304	33ohm+/-5%,1/2W,Metal oxide
R5230-R5232	443521504	15ohm+/-5%,1/2W,Metal oxide
R5240-R5242	443521504	15ohm+/-5%,1/2W,Metal oxide
R5280-R5282	443521034	10kohm+/-5%,1/2W,Metal oxide
R5300-R5302	443521014	100ohm+/-5%,1/2W,Metal oxide
R5330-R5332	443521014	100ohm+/-5%,1/2W,Metal oxide
	Terminals	
P5100,P5101	25060302	NTM-1P233(M1969)
	Sockets	
P6000A-P6002A	25052287	NSCT-4P2184
P6010A	25052289	NSCT-6P2186
P6011A,P6012A	25052287	NSCT-4P2184

PRIMARY CIRCUIT PC BOARD (NAPS-7233-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistor	
Q921	2215864,	KTC3199-GR,
	2212115,	2SC2458-GR,
	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
	Diodes	
D921-D924	22380260,	RL1N4003,
	22380032 or	1SR139-100 or
	22380035	GP104003E
D925	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
	Power transformer	
T902	2300670A	⚠ NPT-1111D <D>
	2300671A	⚠ NPT-1111P <P/A>
	2300672A	⚠ NPT-1111DG <GT/WT/R>
	Capacitors	
C901	3500196S	⚠ RE275V-103M
C902	3300030	⚠ DE1307E472M-KH
C922	354762219	220uF,35V,Elect.

NOTE: <D>:120V model only
<P>:European model only
<WT>:Worldwide model only
<GT> 220V model only
<R> Chinese model only
<A>: Australian model only
<O>: All models except 120V model

CIRCUIT NO.	PART NO.	DESCRIPTION
	Resistors	
R901	431533355	⚠ RC1/2GFKUL-3.3M <D>
R924	443521804	18ohm+/-5%,1/2W,Metal oxide
	Relay	
RL901	25065584,	⚠ NRL-1P10A-DC12-140,
	25065516 or	⚠ NRL-1P10A-DC12-097 or
	25065588	⚠ NRL-1P10A-DC12-143
	Switch	
S902	25065437	⚠ NSS-22157P <WT/R>
	AC outlet	
P902	25051126	⚠ NSCT-4P913 <D>
	25051125	⚠ NSCT-4P912 <P/WT/GT>
	25052115	⚠ NSCT-2P2013 <A>
	25052381	⚠ NSCT-2P2278 <R>
	Fuses	
F901	252199	⚠ 10A-UL, Fuse <D/WT/WR>
F902	252077,	⚠ 4A-SE-EAK,
	252243 or	⚠ 4A-SE-TL250V or
	252277	⚠ 4A-SE-TL250V,Fuse <O>
F903	252075,	⚠ 2.5A-SE-EAK,
	252241 or	⚠ 2.5A-SE-TL250V or
	252275	⚠ 2.5A-SE-TL250V,Fuse <O>
	Fuse holders	
F901A,F901B	25052133	⚠ NSCT-1P2031<D/WT/R>
F902A,F902B	25052133	⚠ NSCT-1P2031 <O>
F903A,F903B	25052133	⚠ NSCT-1P2031 <O>
	Socket	
JL931B	25050267	NSCT-3P95
	Plugs	
P901A	25055675 or	NPLG-2P631 or
	25056028	NPLG-2P0978 <D>
P911	25055675 or	NPLG-2P631 or
	25056028	NPLG-2P0978
P912	25055675 or	NPLG-2P631 or
	25056028	NPLG-2P0978 <WT/GT/R>

RECTIFIER CIRCUIT PC BOARD (NAPS-7234-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diodes	
D6901,D6902	22380260,	RL1N4003,
	22380032 or	1SR139-100 or
	22380035	GP104003E
D6903,D6904	22380309 or	D15XB60 or
	22380044	RBV-1506
D6906	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
	Capacitors	
C6903	374722234	0.022uF+/-5%,50V,Plastic
C6908-C6911	374733344	0.33uF+/-5%,100V,Plastic
C6915,C6916	374733344	0.33uF+/-5%,100V,Plastic
	Relays	
RL6901,RL6902	25065584,	NRL-1P10A-DC12-140,
	25065516 or	NRL-1P10A-DC12-097 or
	25065588	NRL-1P10A-DC12-143

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

PRINTED CIRCUIT BOARD-PARTS LIST 3

NOTE: <D>:120V model only
<P>:European model only
<WT>:Worldwide model only
<GT> 220V model only
<R> Chinese model only
<A>: Australian model only
<O>: All models except 120V model

CIRCUIT NO.	PART NO.	DESCRIPTION
	Fuses	
F6901,F6902	252199	⚠ 10A-UL, Fuse <D>
	252100	⚠ 10A-EAK, Fuse <O>
	Fuse holders	
F6901A,F6901B	25052133	⚠ NSCT-1P2031
F6902A,F6902B	25052133	⚠ NSCT-1P2031
	Fuse label	
F6901C	29362801	T10AL250V <O>
	Socket	
JL6953B	25050268	NSCT-4P96
	Plugs	
P6401	25055042	NPLG-3P32
P6951	25055172	NPLG-9P156
P6952A	25055168	NPLG-5P152
P9505A	25055600	NPLG-2P568
	Radiator	
D6903A	27160483	RAD-152
	Screws	
D6903B,D6904B	82143010	3P+10FN(BC)
	Spring washers	
D6903C,D9604C	871430	SW-3(BC)

POWER SWITCH PC BOARD (NASW-7235-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
S906	25035636	⚠ NPS-111-L590P,Push switch

SPEAKER TERMINAL F/C PC BOARD (NAETC-7236-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diode	
D6600	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
	Coils	
L6800-L6802	231176S	S-1.3C <O>
	Capacitors	
C6830-C6832	374731034	0.01uF+/-5%,100V,Plastic
C6840-C6842	374731024	1000pF+/-5%,100V,Plastic <O>
	Resistors	
R6830-R6832	453630824	8.2ohm+/-5%,1W,Metal
	Relays	
RL6600,RL6602	25065563,	NRL-2P5A-DC24-129,
	25065517 or	NRL-2P5A-DC24-098 or
	25065586	NRL-2P5A-DC24-142
	Terminals	
P6800	25060309	NTM-6PDMN240 <D>
	25060310	NTM-6PDMN241 <O>
	Plugs	
P6008A	25055167	NPLG-4P151
P6810D	25055166	NPLG-3P150
P6830	25055734	NPLG-3P690

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

SPEAKER TERMINAL SR/SB PC BOARD (NAETC-7237-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diodes	
D6603,D6605	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
	Coils	
L6803-L6804	231176S	S-1.3C <O>
L6806	231176S	S-1.3C <O>
	Capacitors	
C6833,C6834	374731034	0.01uF+/-5%,100V,Plastic
C6836	374731034	0.01uF+/-5%,100V,Plastic
C6843,C6844	374731024	1000pF+/-5%,100V,Plastic <O>
C6846	374731024	1000pF+/-5%,100V,Plastic <O>
	Resistors	
R5613	453530474	4.7ohm+/-5%,1/2W,Metal
R6833-R6836	453630824	8.2ohm+/-5%,1W,Metal
	Relays	
RL6603,RL6605	25065563,	NRL-2P5A-DC24-129,
	25065517 or	NRL-2P5A-DC24-098 or
	25065586	NRL-2P5A-DC24-142
	Terminals	
P6802	25060309	NTM-6PDMN240 <D>
	25060310	NTM-6PDMN241 <O>
	Plugs	
P6008B	25055169	NPLG-6P153
P6812E	25055168	NPLG-5P152
P6832	25055734	NPLG-3P690
P6931	25055701	NPLG-5P657

FAN DRIVE CIRCUIT PC BOARD (NAETC-7238-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors	
Q5601	2212445	2SK365-GR
Q5602,Q5603	2215864,	KTC3199-GR,
Q5607,Q6701	2212115,	2SC2458-GR,
Q6702	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q5604,Q5605	2215820,	KRC104M,
Q5608,Q5609	221282 or	DTC144ES or
	2213560	RN1204
Q5606	2203595,	KTC2026-GR,
	2202705,	2SD2394-E,
	2202706 or	2SD2394-F or
	2203594	KTC2026-Y
Q6704	2215995,	KTA1267-GR,
	2212125,	2SA1048-GR,
	2213354 or	2SA933S-R or
	2213355	2SA933S-S
	Diodes	
D5601	223163,	1SS133,
D5604-D5607	223205 or	1SS270A or
D5609,D5610	223222	WG713A
D5602,D5603	22380260,	RL1N4003,
	22380032 or	1SR139-100 or
	22380035	GP104003E
D5611	224471303	MTZJ13C

PRINTED CIRCUIT BOARD-PARTS LIST 3

NOTE: <D>:120V model only
<P>:European model only
<WT>:Worldwide model only
<GT> 220V model only
<R> Chinese model only
<A>: Australian model only
<O>: All models except 120V model

CIRCUIT NO.	PART NO.	DESCRIPTION
	Fuses	
F6901,F6902	252199	⚠ 10A-UL, Fuse <D>
	252100	⚠ 10A-EAK, Fuse <O>
	Fuse holders	
F6901A,F6901B	25052133	⚠ NSCT-1P2031
F6902A,F6902B	25052133	⚠ NSCT-1P2031
	Fuse label	
F6901C	29362801	T10AL250V <O>
	Socket	
JL6953B	25050268	NSCT-4P96
	Plugs	
P6401	25055042	NPLG-3P32
P6951	25055172	NPLG-9P156
P6952A	25055168	NPLG-5P152
P9505A	25055600	NPLG-2P568
	Radiator	
D6903A	27160483	RAD-152
	Screws	
D6903B,D6904B	82143010	3P+10FN(BC)
	Spring washers	
D6903C,D9604C	871430	SW-3(BC)

POWER SWITCH PC BOARD (NASW-7235-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
S906	25035636	⚠ NPS-111-L590P,Push switch

SPEAKER TERMINAL F/C PC BOARD (NAETC-7236-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diode	
D6600	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
	Coils	
L6800-L6802	231176S	S-1.3C <O>
	Capacitors	
C6830-C6832	374731034	0.01uF+/-5%,100V,Plastic
C6840-C6842	374731024	1000pF+/-5%,100V,Plastic <O>
	Resistors	
R6830-R6832	453630824	8.2ohm+/-5%,1W,Metal
	Relays	
RL6600,RL6602	25065563,	NRL-2P5A-DC24-129,
	25065517 or	NRL-2P5A-DC24-098 or
	25065586	NRL-2P5A-DC24-142
	Terminals	
P6800	25060309	NTM-6PDMN240 <D>
	25060310	NTM-6PDMN241 <O>
	Plugs	
P6008A	25055167	NPLG-4P151
P6810D	25055166	NPLG-3P150
P6830	25055734	NPLG-3P690

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

SPEAKER TERMINAL SR/SB PC BOARD (NAETC-7237-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diodes	
D6603,D6605	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
	Coils	
L6803-L6804	231176S	S-1.3C <O>
L6806	231176S	S-1.3C <O>
	Capacitors	
C6833,C6834	374731034	0.01uF+/-5%,100V,Plastic
C6836	374731034	0.01uF+/-5%,100V,Plastic
C6843,C6844	374731024	1000pF+/-5%,100V,Plastic <O>
C6846	374731024	1000pF+/-5%,100V,Plastic <O>
	Resistors	
R5613	453530474	4.7ohm+/-5%,1/2W,Metal
R6833-R6836	453630824	8.2ohm+/-5%,1W,Metal
	Relays	
RL6603,RL6605	25065563,	NRL-2P5A-DC24-129,
	25065517 or	NRL-2P5A-DC24-098 or
	25065586	NRL-2P5A-DC24-142
	Terminals	
P6802	25060309	NTM-6PDMN240 <D>
	25060310	NTM-6PDMN241 <O>
	Plugs	
P6008B	25055169	NPLG-6P153
P6812E	25055168	NPLG-5P152
P6832	25055734	NPLG-3P690
P6931	25055701	NPLG-5P657

FAN DRIVE CIRCUIT PC BOARD (NAETC-7238-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors	
Q5601	2212445	2SK365-GR
Q5602,Q5603	2215864,	KTC3199-GR,
Q5607,Q6701	2212115,	2SC2458-GR,
Q6702	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q5604,Q5605	2215820,	KRC104M,
Q5608,Q5609	221282 or	DTC144ES or
	2213560	RN1204
Q5606	2203595,	KTC2026-GR,
	2202705,	2SD2394-E,
	2202706 or	2SD2394-F or
	2203594	KTC2026-Y
Q6704	2215995,	KTA1267-GR,
	2212125,	2SA1048-GR,
	2213354 or	2SA933S-R or
	2213355	2SA933S-S
	Diodes	
D5601	223163,	1SS133,
D5604-D5607	223205 or	1SS270A or
D5609,D5610	223222	WG713A
D5602,D5603	22380260,	RL1N4003,
	22380032 or	1SR139-100 or
	22380035	GP104003E
D5611	224471303	MTZJ13C

PRINTED CIRCUIT BOARD-PARTS LIST 4

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (HFE) as the original type.

CIRCUIT NO.	PART NO.		DESCRIPTION
	Diodes		
D6701,D6702	223163,		1SS133,
	223205 or		1SS270A or
	223222		WG713A
D6703,D6704	224470512		MTZJ5.1B
	Capacitors		
C5602-C5604	354761019		100uF,35V,Elect.
C6701,C6706	354761019		100uF,6.3V,Elect.
C6704	354780109		1uF,50V,Elect.
	Resistors		
R5612	443521014		100ohm+/-5%,1/2W,Metal oxide
R5616	441721224		1.2kohm+/-5%,2W,Metal oxide
	Sockets		
P7701B	25052201,		NSCT-5P2098,
	25051271,		NSCT-5P1060,
	25051812 or		NSCT-5P1599 or
	25052014		NSCT-5P1801
P9503A	25051231		NSCT-6P1021
JL6933A	25051088		NSCT-4P875

THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7239-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Thermistors	
R5651	4000153	PTH9M04BF222TS2F333
R5653	4000150	PTH9M04BC222TS2F333 <D>
	4000151	PTH9M04BD222TS2F333 <O>
	Socket	
JL6933B	25051088	NSCT-4P875

POWER AMPLIFIER DRIVER PC BOARD (NAAF-7250-2A/2B)

CIRCUIT NO.	PART NO.		DESCRIPTION
	Transistors		
Q6000-Q6006	2213284 or		2SC1740S-R or
Q6010-Q6014	2213285		2SC1740S-S
Q6016	2213284 or		2SC1740S-R or
	2213285		2SC1740S-S
Q6020-Q6022	2215995,		KTA1267-GR,
	2212125,		2SA1048-GR,
	2213354 or		2SA933S-R or
	2213355		2SA933S-S
Q6023,Q6024	2211455 or		2SA1015-GR or
Q6026	2211454		2SA1015-Y
Q6030-Q6032	2215854,		KTC3206-Y,
	2211633,		2SC2229-O,
	2211634 or		2SC2229-Y or
	2215853		KTC3206-O
Q6033,Q6034	2203434 or		KTD2061-Y or
Q6036	2203010		2SC5171
Q6040-Q6042	2215844,		KTA1024-Y,
	2211353,		2SA949-O,
	2211354 or		2SA949-Y or
	2215843		KTA1024-O
Q6043-Q6044	2203424 or		KTB1369-Y or
Q6046	2203000		2SA1930
Q6050-Q6054	2202823 or	*	2SC5200-O or
Q6056	2202822	*	2SC5200-R
Q6060-Q6064	2202813 or	*	2SA1943-O or
Q6066	2202812	*	2SA1943-R
Q6070-Q6074	2214984 or		2SC2631-R or
Q6076	2214985		2SC2631-S
Q6090-Q6092	2203424 or		KTB1369-Y or
	2203000		2SA1930
Q6100-Q6102	2203434 or		KTD2061-Y or
	2203010		2SC5171
Q6703	2215885,		KTA1268-GR,
	2211792,		2SA992-F,
	2211793 or		2SA992-E or
	2215886		KTA1268-BL
	Diodes		
D6000-D6004	223163,		1SS133,
D6006	223205 or		1SS270A or
	223222		WG713A
	Cores		
L6000-L6002	5597-45502		
L6010-L6012	5597-45502		
	Capacitors		
C6000-C6004	374721024		1000pF+/-5%,50V,Plastic
C6006	374721024		1000pF+/-5%,50V,Plastic
C6020-C6022	394501007		10uF,160V,Elect.
C6023,C6024	354784709		47uF,50V,Elect.
C6026	354784709		47uF,50V,Elect.
C6030-C6034	374734734		0.047uF+/-5%,100V,Plastic
C6036	374734734		0.047uF+/-5%,100V,Plastic
C6510-C6514	354790479		4.7uF,100V,Elect.
C6520-C6523	354790479		4.7uF,100V,Elect.
C6531,C6532	374721034		0.01uF+/-5%,50V,Plastic
C6533	374721044		0.1uF+/-5%,50V,Plastic
C6901,C6902	3504373		15000uF,71V,Elect.
	Resistors		
R6040-R6044	5210258		N06HR1KBC,Trimming
R6046	5210258		N06HR1KBC,Trimming
R6070-R6072	443528204		82ohm+/-5%,1/2W,Metal oxide
R6073,R6074,R6076	443521814		180ohm+/-5%,1/2W,Metal oxide
R6080-R6082	443521004		10ohm+/-5%,1/2W,Metal oxide
R6083,R6084	453530224		2.2ohm+/-5%,1/2W,Metal
R6086	453530224		2.2ohm+/-5%,1/2W,Metal
R6090-R6092	443521004		10ohm+/-5%,1/2W,Metal oxide
R6093,R6094	453530224		2.2ohm+/-5%,1/2W,Metal
R6096	453530224		2.2ohm+/-5%,1/2W,Metal
R6100-R6104	4000201,		RF-5EGKR22,
R6106	4000132 or		RGC55 0.22 or
	4500245		BPR55FK0.22, Metal plate
R6130-R6134	453630824		8.2ohm+/-5%,1W,Metal
R6136	453630824		8.2ohm+/-5%,1W,Metal
R6230-R6232	443521214		120ohm+/-5%,1/2W,Metal oxide
R6240-R6242	443521214		120ohm+/-5%,1/2W,Metal oxide
R6250-R6252	443521804		18ohm+/-5%,1/2W,Metal oxide
R6260-R6262	443521804		18ohm+/-5%,1/2W,Metal oxide
R6270-R6272	453530224		2.2ohm+/-5%,1/2W,Metal
R6280-R6282	453530224		2.2ohm+/-5%,1/2W,Metal
R6510-R6514	453532294		0.22ohm+/-5%,1/2W,Metal
R6520-R6523	453532294		0.22ohm+/-5%,1/2W,Metal

PRINTED CIRCUIT BOARD-PARTS LIST 5

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (HFE) as the original type.

CIRCUIT NO.	PART NO.		DESCRIPTION
	Terminals		
P5100A,P5101A	25060301		NTM-1P232(M1700)
P5201A,P5202A	25060301		NTM-1P232(M1700)
	Sockets		
P5003	2009990666UL		NSAS-12P0929
P5004	2009990690UL		NSAS-12P0958
P6008	2009990670AUL		NSAS-14P0933
P6810	2009990668UL		NSAS-6P0931
P6812	2009990669UL		NSAS-6P0932
P6931A	25051230		NSCT-5P1020
P6952	2009990671UL		NSAS-6P0934
	Plugs		
P6000-P6004	25056009		NPLG-4P0959
P6006	25056009		NPLG-4P0959
P6010	25056011		NPLG-6P0961
P6011,P6012	25056009		NPLG-4P0959
P6013	25056011		NPLG-6P0961
P6014,P6016	25056009		NPLG-4P0959
P6080-P6084	25055038		NPLG-2P29
P6086	25055038		NPLG-2P29
	Retainer		
P6009	27141794		(BUS)
	Bus bars		
P6202,P6203	27141753		BBL50
P6204,P6208	27141774		BBL75
P6205	27141753		BBL50
P6206,P6207	27141773		BBL40
	Clamps		
P6301-P6303	260224		CP-1S
P6305-P6307	260224		CP-1S
P9508	27301394		HL-18-0
	Heat sinks		
Q6090A-Q6092A	27160486		RAD-155
	Screws		
Q6090B-Q6092B	838430107		3TTB+10S(BC)
Q6100B-Q6102B	838430107		3TTB+10S(BC)

POWER AMPLIFIER DRIVER PC BOARD (NAAF-7251-2A/2B)

CIRCUIT NO.	PART NO.		DESCRIPTION
	Transistors		
Q5003,Q5004	2215896,	*	KTC3200-BL,
Q5006,Q5013	2210755,	*	2SC1775A-E,
Q5014,Q5016	2210756 or	*	2SC1775A-F or
	2211733	*	2SC1845-E
Q5023,Q5024	2215896,		KTC3200-BL,
Q5026	2210755,		2SC1775A-E,
	2210756 or		2SC1775A-F or
	2211733		2SC1845-E
Q5033,Q5034	2215844,		KTA1024-Y,
Q5036,Q5043	2211353,		2SA949-O,
Q5044,Q5046	2211354 or		2SA949-Y or
	2215843		KTA1024-O
Q5053,Q5054	2215844,	*	KTA1024-Y,
Q5056	2211353,	*	2SA949-O,
	2211354 or	*	2SA949-Y or
	2215843	*	KTA1024-O
Q5083,Q5084	2215854,	*	KTC3206-Y,
Q5086	2211633,	*	2SC2229-O,
	2211634 or	*	2SC2229-Y or
	2215853	*	KTC3206-O
	Diodes		
D5003,D5004	224470562		MTZJ5.6B
D5006	224470562		MTZJ5.6B
	Capacitors		
C5003,C5004	393384707		47uF,50V,Elect.
C5006	393384707		47uF,50V,Elect.
C5013,C5014	374722215		220pF+/-10%,50V,Plastic
C5016	374722215		220pF+/-10%,50V,Plastic
C5043,C5044	393341017		100uF,16V,Elect.
C5046	393341017		100uF,16V,Elect.
C5053,C5054	354781009		10uF,50V,Elect.
C5056	354781009		10uF,50V,Elect.
C5073,C5074	354791009		10uF,100V,Elect.
C5076	354791009		10uF,100V,Elect.
C5083,C5084	354772209		22uF,63V,Elect.
C5086	354772209		22uF,63V,Elect.
C5093,C5094	354784709		47uF,50V,Elect.
C5096	354784709		47uF,50V,Elect.
C5103,C5104	374721015		100pF+/-10%,50V,Plastic
C5106	374721015		100pF+/-10%,50V,Plastic
C5123,C5124	354794709		47uF,100V,Elect.
C5126	354794709		47uF,100V,Elect.
C5133,C5134	354794709		47uF,100V,Elect.
C5136	354794709		47uF,100V,Elect.
	Resistors		
R5133,R5134	443528214		820ohm+/-5%,1/2W,Metal oxide
R5136,R5143	443528214		820ohm+/-5%,1/2W,Metal oxide
R5144,R5146	443528214		820ohm+/-5%,1/2W,Metal oxide
R5153,R5154	443521034		10kohm+/-5%,1/2W,Metal oxide
R5156	443521034		10kohm+/-5%,1/2W,Metal oxide
R5163,R5164	443521024		1kohm+/-5%,1/2W,Metal oxide
R5166	443521024		1kohm+/-5%,1/2W,Metal oxide
R5173,R5174	443528214		820ohm+/-5%,1/2W,Metal oxide
R5176	443528214		820ohm+/-5%,1/2W,Metal oxide
R5183,R5184	443523304		33ohm+/-5%,1/2W,Metal oxide
R5186	443523304		33ohm+/-5%,1/2W,Metal oxide
R5233,R5234	443521504		15ohm+/-5%,1/2W,Metal oxide
R5236,R5243	443521504		15ohm+/-5%,1/2W,Metal oxide
R5244,R5246	443521504		15ohm+/-5%,1/2W,Metal oxide
R5283,R5284	443521034		10kohm+/-5%,1/2W,Metal oxide
R5286	443521034		10kohm+/-5%,1/2W,Metal oxide
R5303,R5304	443521014		100ohm+/-5%,1/2W,Metal oxide
R5306,R5333	443521014		100ohm+/-5%,1/2W,Metal oxide
R5334,R5336	443521014		100ohm+/-5%,1/2W,Metal oxide
	Terminals		
P5201,P5202	25060302		NTM-1P233(M1969)
	Sockets		
P6003A,P6004A	25052287		NSCT-4P2184
P6006A	25052287		NSCT-4P2184
P6013A	25052289		NSCT-6P2186
P6014A,P6016A	25052287		NSCT-4P2184

PRINTED CIRCUIT BOARD-PARTS LIST 6

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

NOTE: <D>:120V model only
<O>: All models except 120V model

POWER SUPPLY CIRCUIT PC BOARD (NAPS-7252-2A/2B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q9401	222780155JRC	NJM78M15FA
Q9411	222790155JRC	NJM79M15FA
Q9421,Q9431	222780054JRC	NJM7805FA
Q9441	222790054JRC	NJM7905FA
	Transistors	
Q6901	2215864,	KTC3199-GR,
	2212115,	2SC2458-GR,
	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q9501	2211644	2SA965-Y
	Diodes	
D9501,D9502	22380285,	RS403M,
	22380022 or	RBV402 or
	22380271	D3SBA20
D9506,D9507	22380260,	RL1N4003,
	22380032 or	1SR139-100 or
	22380035	GP104003E
D9508	224473304	MTZJ33D
	Capacitors	
C9401,C9402,C9411	394561007	10uF,35V,Elect.
C9412,C9421,C9422	394561007	10uF,35V,Elect.
C9431,C9432	394561007	10uF,35V,Elect.
C9441,C9442	394561007	10uF,35V,Elect.
C9501-C9504	374723344	0.33uF+/-5%,50V,Plastic
C9505	354762229	2200uF,35V,Elect.
C9506	354761029	1000uF,35V,Elect.
C9507	354782219	220uF,50V,Elect.
C9508	354744729	4700uF,16V,Elect.
C9509	354751029	1000uF,25V,Elect.
C9510	354772219	220uF,63V,Elect.
C9513	374723344	0.33uF+/-5%,50V,Plastic
C9521-C9523	374722234	0.022uF+/-5%,50V,Plastic
	Resistors	
R9401,R9402	441721504	15ohm+/-5%,2W,Metal oxide
R9411,R9412	441722704	27ohm+/-5%,2W,Metal oxide
R9421-R9424	441620824	8.2ohm+/-5%,1W,Metal oxide
R9431,R9433	441621004	10ohm+/-5%,1W,Metal oxide
R9442,R9444	441622204	22ohm+/-5%,1W,Metal oxide
R9506	443522204	22ohm+/-5%,1/2W,Metal oxide
R9521	453530224	2.2ohm+/-5%,1/2W,Metal
	Fuses	
F9501,F9502	252160 or	⚠ 2.5A-UL/T-237 or
	252254	⚠ 2.5A-T/UL-ST2 <D>
	252075,	⚠ 2.5A-SE-EAK,
	252241 or	⚠ 2.5A-SE-TL250V or
	252275	⚠ 2.5A-SE-TL250V <O>
F9503,F9504	252158 or	⚠ 1.6A-UL/T-237 or
	252252	⚠ 1.6A-T/UL-ST2 <D>
	252073 or	⚠ 1.6A-SE-EAK or
	252239	⚠ 1.6A-SE-TL250V <O>
	Fuse holders	
F9501A,F9501B	25052133	⚠ NSCT-1P2031
F9502A,F9502B	25052133	⚠ NSCT-1P2031
F9503A,F9503B	25052133	⚠ NSCT-1P2031
F9504A,F9504B	25052133	⚠ NSCT-1P2031

CIRCUIT NO.	PART NO.	DESCRIPTION
	Fuse labels	
F9501C	29361747	T2.5AL250V <O>
F9503C	29361769	T1.6AL250V <O>
	Sockets	
JL6953A,JL9504A	25051108	NSCT-4P895
	Plugs	
P9501	25055138	NPLG-8P122
P9502A	25055159	NPLG-15P143
P9503	25055702	NPLG-6P658

THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7258-2A/2B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Thermistors	
R5652	4000153	PTH9M04BF222TS2F333
R5654	4000150	PTH9M04BC222TS2F333 <D>
	4000151	PTH9M04BD222TS2F333 <O>
	Socket	
JL9504B	25051088	NSCT-4P875

PREAMPLIFIER CIRCUIT PC BOARD (NAAF-7262-1N/1O/1P)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q4000,Q4420	22241383R2 or	NJM4565M-D
Q4421,Q4800	22240489R1NE	MPC4570G2-T1(MST)
Q4100	22240943R2	TC9163AF
Q4101	22241221R2	TC9164AF
Q4200-Q4203	22241640R2	TC94A07F
Q4210-Q4213	22241450R2 or	NJM2082M-D or
Q4410,Q4411	22241567R2	NJM2082M
Q4400,Q4401	22241451R9	NJU7306G
	Transistors	
Q4491	2215410R2	RN1441
Q4600-Q4607	2215410R2	RN1441
Q4610-Q4617	2215410R2	RN1441
Q4810-Q4815	2215410R2	RN1441
	Diode	
D4540	224490510R2	UDZ5.1B
	Capacitors	
C3600-C3607	374723314	330pF+/-5%,50V,Plastic
C3610-C3617	393381007	10uF,50V,Elect.
C3800-C3802	393384707	47uF,50V,Elect.
C3803-C3806	393381007	10uF,50V,Elect.
C3807	354724719	470uF,6.3V,Elect.
C3820,C3821	393384707	47uF,50V,Elect.
C3840,C3841	393381007	10uF,50V,Elect.
C4010,C4011	393381007	10uF,50V,Elect.
C4120	354742219	220uF,16V,Elect.
C4121	354741029	1000uF,16V,Elect.
C4200-C4207	393381007	10uF,50V,Elect.
C4217	374721024	1000pF+/-5%,50V,Plastic
C4220-C4227	393382207	22uF,50V,Elect.
C4400-C4402	393384707	47uF,50V,Elect.
C4407	393384707	47uF,50V,Elect.
C4417	374721024	1000pF+/-5%,50V,Plastic
C4420-C4422	354741009	10uF,16V,Elect.
C4430-C4432	374721044	0.1uF+/-5%,50V,Plastic
C4440-C4442	374724724	4700pF+/-5%,50V,Plastic

PRINTED CIRCUIT BOARD-PARTS LIST 6

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

NOTE: <D>:120V model only
<O>: All models except 120V model

POWER SUPPLY CIRCUIT PC BOARD (NAPS-7252-2A/2B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q9401	222780155JRC	NJM78M15FA
Q9411	222790155JRC	NJM79M15FA
Q9421,Q9431	222780054JRC	NJM7805FA
Q9441	222790054JRC	NJM7905FA
	Transistors	
Q6901	2215864,	KTC3199-GR,
	2212115,	2SC2458-GR,
	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q9501	2211644	2SA965-Y
	Diodes	
D9501,D9502	22380285,	RS403M,
	22380022 or	RBV402 or
	22380271	D3SBA20
D9506,D9507	22380260,	RL1N4003,
	22380032 or	1SR139-100 or
	22380035	GP104003E
D9508	224473304	MTZJ33D
	Capacitors	
C9401,C9402,C9411	394561007	10uF,35V,Elect.
C9412,C9421,C9422	394561007	10uF,35V,Elect.
C9431,C9432	394561007	10uF,35V,Elect.
C9441,C9442	394561007	10uF,35V,Elect.
C9501-C9504	374723344	0.33uF+/-5%,50V,Plastic
C9505	354762229	2200uF,35V,Elect.
C9506	354761029	1000uF,35V,Elect.
C9507	354782219	220uF,50V,Elect.
C9508	354744729	4700uF,16V,Elect.
C9509	354751029	1000uF,25V,Elect.
C9510	354772219	220uF,63V,Elect.
C9513	374723344	0.33uF+/-5%,50V,Plastic
C9521-C9523	374722234	0.022uF+/-5%,50V,Plastic
	Resistors	
R9401,R9402	441721504	15ohm+/-5%,2W,Metal oxide
R9411,R9412	441722704	27ohm+/-5%,2W,Metal oxide
R9421-R9424	441620824	8.2ohm+/-5%,1W,Metal oxide
R9431,R9433	441621004	10ohm+/-5%,1W,Metal oxide
R9442,R9444	441622204	22ohm+/-5%,1W,Metal oxide
R9506	443522204	22ohm+/-5%,1/2W,Metal oxide
R9521	453530224	2.2ohm+/-5%,1/2W,Metal
	Fuses	
F9501,F9502	252160 or	⚠ 2.5A-UL/T-237 or
	252254	⚠ 2.5A-T/UL-ST2 <D>
	252075,	⚠ 2.5A-SE-EAK,
	252241 or	⚠ 2.5A-SE-TL250V or
	252275	⚠ 2.5A-SE-TL250V <O>
F9503,F9504	252158 or	⚠ 1.6A-UL/T-237 or
	252252	⚠ 1.6A-T/UL-ST2 <D>
	252073 or	⚠ 1.6A-SE-EAK or
	252239	⚠ 1.6A-SE-TL250V <O>
	Fuse holders	
F9501A,F9501B	25052133	⚠ NSCT-1P2031
F9502A,F9502B	25052133	⚠ NSCT-1P2031
F9503A,F9503B	25052133	⚠ NSCT-1P2031
F9504A,F9504B	25052133	⚠ NSCT-1P2031

CIRCUIT NO.	PART NO.	DESCRIPTION
	Fuse labels	
F9501C	29361747	T2.5AL250V <O>
F9503C	29361769	T1.6AL250V <O>
	Sockets	
JL6953A,JL9504A	25051108	NSCT-4P895
	Plugs	
P9501	25055138	NPLG-8P122
P9502A	25055159	NPLG-15P143
P9503	25055702	NPLG-6P658

THERMAL DETECTOR CIRCUIT PC BOARD (NAETC-7258-2A/2B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Thermistors	
R5652	4000153	PTH9M04BF222TS2F333
R5654	4000150	PTH9M04BC222TS2F333 <D>
	4000151	PTH9M04BD222TS2F333 <O>
	Socket	
JL9504B	25051088	NSCT-4P875

PREAMPLIFIER CIRCUIT PC BOARD (NAAF-7262-1N/1O/1P)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q4000,Q4420	22241383R2 or	NJM4565M-D
Q4421,Q4800	22240489R1NE	MPC4570G2-T1(MST)
Q4100	22240943R2	TC9163AF
Q4101	22241221R2	TC9164AF
Q4200-Q4203	22241640R2	TC94A07F
Q4210-Q4213	22241450R2 or	NJM2082M-D or
Q4410,Q4411	22241567R2	NJM2082M
Q4400,Q4401	22241451R9	NJU7306G
	Transistors	
Q4491	2215410R2	RN1441
Q4600-Q4607	2215410R2	RN1441
Q4610-Q4617	2215410R2	RN1441
Q4810-Q4815	2215410R2	RN1441
	Diode	
D4540	224490510R2	UDZ5.1B
	Capacitors	
C3600-C3607	374723314	330pF+/-5%,50V,Plastic
C3610-C3617	393381007	10uF,50V,Elect.
C3800-C3802	393384707	47uF,50V,Elect.
C3803-C3806	393381007	10uF,50V,Elect.
C3807	354724719	470uF,6.3V,Elect.
C3820,C3821	393384707	47uF,50V,Elect.
C3840,C3841	393381007	10uF,50V,Elect.
C4010,C4011	393381007	10uF,50V,Elect.
C4120	354742219	220uF,16V,Elect.
C4121	354741029	1000uF,16V,Elect.
C4200-C4207	393381007	10uF,50V,Elect.
C4217	374721024	1000pF+/-5%,50V,Plastic
C4220-C4227	393382207	22uF,50V,Elect.
C4400-C4402	393384707	47uF,50V,Elect.
C4407	393384707	47uF,50V,Elect.
C4417	374721024	1000pF+/-5%,50V,Plastic
C4420-C4422	354741009	10uF,16V,Elect.
C4430-C4432	374721044	0.1uF+/-5%,50V,Plastic
C4440-C4442	374724724	4700pF+/-5%,50V,Plastic

PRINTED CIRCUIT BOARD-PARTS LIST 7

NOTE: <D>:120V model only
<O>: All models except 120V model

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C4491	374721024	1000pF+/-5%,50V,Plastic
C4492	354724719	470uF,6.3V,Elect.
C4522,C4523	354741009	10uF,16V,Elect.
C4524,C4525	354742219	220uF,16V,Elect.
C4540	354721019	100uF,6.3V,Elect.
C4600-C4607	393384707	47uF,50V,Elect.
C4610-C4617	374722224	2200pF+/-5%,50V,Plastic
C4800,C4801	354741009	10uF,16V,Elect.
C4802,C4803	354780229	2.2uF,50V,Elect.
C4806,C4807	354721019	100uF,6.3V,Elect.
C4808,C4809	374722224	2200pF+/-5%,50V,Plastic
	Resistors	
R4520,R4521	4500171F	2.2ohm+/-5%,1/4W,Metal oxide
	Terminals	
P3600,P4600	25045586	NPJ-4PDBRW397
P3601,P4601	25045575 or	NPJ-4PDRW389 or
	25045303	NPJ-4PDBL162
	Sockets	
P4010B	25051235	NSCT-10P1025
P4011B,P4020B	25051240	NSCT-15P1030
	Plugs	
P4012A	25055734	NPLG-3P690
P5003E	25055152	NPLG-8P136
P5004E	25055153	NPLG-9P137
	Bus bars	
J4220-J4222	27141754	BBL60
	Holder	
P5004G	27190608-1	Clamp

AUDIO TERMINAL PC BOARD (NAAF-7263-1N/1O/1P)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q1001	222780125	78M12HF
Q3000	22241383-R2 or	NJM4565M-D
Q3020,Q3021	22240489R1NE	MPC4570G2-T1(MST)
Q3100	22241639R2	TC9273F-017
	Transistor	
Q1102	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR
	Capacitors	
C1002	354741009	10uF,16V,Elect.
C1003,C1006	354780339	3.3uF,50V,Elect.
C1007	354741009	10uF,16V,Elect.
C3000,C3001	374721015	100pF+/-10%,50V,Plastic <D>
	374722215	220pF+/-10%,50V,Plastic <O>
C3002,C3003	393384707	47uF,50V,Elect.
C3004,C3005	374721524	1500pF+/-5%,50V,Plastic <O>
C3006,C3007	354722219	220uF,6.3V,Elect.
C3008,C3009	374721234	0.012uF+/-5%,50V,Plastic
C3010,C3011	374723924	3900pF+/-5%,50V,Plastic
C3020-C3023	374723314	330pF+/-5%,50V,Plastic
C3026-C3029	393384707	47uF,50V,Elect.
C3120,C3121	354744709	47uF,16V,Elect.
C3122,C3123	354742219	220uF,16V,Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminals	
P3000,P3001	25045575 or	NPJ-4PDRW389 or
	25045303	NPJ-4PDBL162
	Sockets	
P1010A	25052248,	NSCT-15P2145,
	25051859 or	NSCT-15P1646 or
	25052061	NSCT-15P1848
P3010B	25051232	NSCT-7P1022
P3011B	25051240	NSCT-15P1030

VIDEO TERMINAL PC BOARD (NAAF-7264-1N/1O/1P)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q3200-Q3205	22241383-R2 or	NJM4565M-D or
Q3400	22240489R1NE	MPC4570G2-T1(MST)
Q3300	22240829	TC9274N-008
	Transistors	
Q3410-Q3413	2215410R2	RN1441
	Capacitors	
C3200-C3209	374723314	330pF+/-5%,50V,Plastic
C3212-C3223	393384707	47uF,50V,Elect.
C3320,C3321	354742219	220uF,16V,Elect.
C3322,C3323	354744709	47uF,16V,Elect.
C3400-C3403	393384707	47uF,50V,Elect.
C3404,C3405	374721024	1000pF+/-5%,50V,Plastic
	Resistors	
R3320,R3321	443522204	22ohm+/-5%,1/2W,Metal oxide
	Terminals	
P3200-P3203	25045575 or	NPJ-4PDRW389 or
	25045303	NPJ-4PDBL162
	Sockets	
P3210B,P3211B	25051232	NSCT-7P1022
	Plug	
P3220A	25055133	NPLG-3P117

CONNECTOR PC BOARD (NAAF-7267-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors	
Q2903,Q2905	2216175R2 or	KTC3875-GR or
Q2907,Q2909	2213145R2	2SC2712-GR
Q2902,Q2904	2216220R2 or	KRA102S or
Q2906,Q2908	2214530R2	RN2402
Q2911,Q2921	2216190R2 or	KRC102S or
Q2922	2214470R2	RN1402
Q2912	2212855 or	2SB1068-U or
	2212853	2SB1068-K
	Diodes	
D2902,D2903	223234R2 or	1SS352 or
D2921	223269R2	1SS355
	Capacitors	
C2902-C2905	354741009	10uF,16V,Elect.
C2909	354741009	10uF,16V,Elect.
C2921	354721019	100uF,6.3V,Elect.
C2922	374722234	0.022uF+/-5%,50V,Plastic
	Thermistor	
R2909	4000195	RXE030

PRINTED CIRCUIT BOARD-PARTS LIST 8

NOTE: <O>: All models except 120V model

CIRCUIT NO.	PART NO.	DESCRIPTION
	Resistors	
R2912	453530474	4.7ohm+/-5%,1/2W,Metal
R2913	453530224	2.2ohm+/-5%,1/2W,Metal
	Sockets	
P4012A	25051255	NSCT-3P1045
P7201B	25051840	NSCT-33P1627
P9502	2009990692UL	NSAS-30P0961
	Plugs	
P2005A,P2505A	25055708	NPLG-12P664
P2006A	25055711	NPLG-15P667
P2705A	25055704	NPLG-8P660
P2901A	25055917	NPLG-19P870
P2906	25055701	NPLG-5P657
P3010A	25055703	NPLG-7P659
P3011A	25055711	NPLG-15P667
P3210A,P3211A	25055703	NPLG-7P659
P4010A	25055706	NPLG-10P662
P4011A.P4020A	25055711	NPLG-15P667
P7703A	25055712	NPLG-20P668
P7704A	25055704	NPLG-8P660
P7705A	25055711	NPLG-15P667
P811A	25055712	NPLG-20P668
	Bus bar	
J2903	27141753	BBL50
	Clamp	
P2902	260224	CP-1S

COMPOSITE VIDEO CIRCUIT PC BOARD (NAVD-7268-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q2001	22241037	LC74761-9189
Q2005	22241619R2	TC9273F-004
Q2101	222740515R2	74HC4051AF
Q2102,Q2105	22241443R2	TK15420M
Q2201	222740515R2	74HC4051AF
	Transistors	
Q2002,Q2006	2216175R2 or	KTC3875-GR or
Q2103,Q2106	2213145R2	2SC2712-GR
Q2003,Q2004	2216031R2 or	RN1444-A or
Q2108,Q2109	2216032R2	RN1444-B
Q2007	2216210R2 or	KRC104S or
	2214490R2	RN1404
Q2011-Q2014	2216220R2 or	KRA102S or
	2214530R2	RN2402
Q2104,Q2107	2216185R2 or	KTA1504-GR or
	2214375R2	2SA1162-GR
Q2301-Q2308	2216031R2 or	RN1444-A or
	2216032R2	RN1444-B
	Diodes	
D2001	223234R2 or	1SS352 or
D2006,D2007	223269R2	1SS355
D2103,D2104	223234R2 or	1SS352 or
D2106,D2107	223269R2	1SS355
	Crystals	
X2001	3010167 or	XTL-14.32M or
	3010347	HQS-HC49U-14318-11
X2002	3010238 or	XTL-17.73M or
	3010348	HQS-HC49U-17734-11 <O>
	Coils	
L2001	231292J056R2	NCH-1572
L2002	231237K022R2	NCH-1471
	Capacitors	
C2001	354721019	100uF,6.3V,Elect.
C2002,C2016	354780109	1uF,50V,Elect.
C2005	354783399	0.33uF,50V,Elect.
C2015	374726824	6800pF+/-5%,50V,Plastic
C2017	374722234	0.022uF+/-5%,50V,Plastic
C2020	354784799	0.47uF,50V,Elect.
C2021	375524744	0.47uF+/-5%,50V,Plastic
C2022,C2024	354721019	100uF,6.3V,Elect.
C2026,C2028	354741009	10uF,16V,Elect.
C2044	354741009	10uF,16V,Elect.
C2045	354780229	2.2uF,50V,Elect.
C2046	354784799	0.47uF,50V,Elect.
C2047	354721019	100uF,6.3V,Elect.
C2104,C2106	354721019	100uF,6.3V,Elect.
C2121	354741009	10uF,16V,Elect.
C2204,C2206	354721019	100uF,6.3V,Elect.
C2221,C2306	354721019	100uF,6.3V,Elect.
C2301-C2304	354721019	100uF,6.3V,Elect.
	Terminals	
P2001-P2003	25045299	NPJ-3PDYE158
	Sockets	
P2005B	25051237	NSCT-12P1027
P2006B	25051240	NSCT-15P1030
P2007B	25051241	NSCT-20P1031

S VIDEO CIRCUIT PC BOARD (NAVD-7269-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q2501,Q2511	222740515R2	74HC4051AF
Q2502,Q2602	22241443R2	TK15420M
Q2601,Q2611	222740515R2	74HC4051AF
	Transistors	
Q2401-Q2414	2216031R2 or	RN1444-A or
Q2522,Q2622	2216032R2	RN1444-B
Q2503,Q2505	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR
Q2504,Q2506	2216185R2 or	KTA1504-GR or
	2214375R2	2SA1162-GR
	Diodes	
D2503-D2506	223234R2 or	1SS352 or
	223269R2	1SS355
	Coils	
L2508,L2608	231237K022R2	NCH-1471
L2509,L2609	231292J056R2	NCH-1572
	Capacitors	
C2422,C2424	354721019	100uF,6.3V,Elect.
C2426,C2428	354721019	100uF,6.3V,Elect.
C2432	354721019	100uF,6.3V,Elect.
C2504,C2506	354721019	100uF,6.3V,Elect.
C2573,C2575	354721019	100uF,6.3V,Elect.
C2604,C2606	354721019	100uF,6.3V,Elect.

PRINTED CIRCUIT BOARD-PARTS LIST 9

CIRCUIT NO.	PART NO.	DESCRIPTION
	Sockets	
P2501	25051750	NSCT-4P1537
P2502	25051568	NSCT-12P1355
P2503,P2504	25051748	NSCT-8P1535
P2505B	25051237	NSCT-12P1027
P2507B	25051241	NSCT-20P1031
	Plug	
P2506A	25055236	NPLG-5P220

COMPONENT VIDEO CIRCUIT PC BOARD (NAVD-7270-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistor	
Q2701	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR
	Diode	
D2701	223234R2 or	1SS352 or
	223269R2	1SS355
	Relays	
RL2701,RL2702	25065610	NRL-2P1A-DC4,5-156
	Terminals	
P2701-P2703	25045629	NPJ-3PDGLR436 <D>
	25045607	NPJ-3PDGLR414 <O>
	Socket	
P2705B	25051233	NSCT-8P1023

RI TERMINAL PC BOARD (NAETC-7272-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
	IC	
Q233	222780565	78M56
	Photo coupler	
Q211	24120080	PC817X
	Transistors	
Q231,Q232	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR
	Diodes	
D202,D203	223234R2 or	1SS352 or
	223269R2	1SS355
	Capacitors	
C223	354744709	47uF,16V,Elect.
C231	354741009	10uF,16V,Elect.
C232	354751029	1000uF,25V,Elect.
	Resistors	
R233	453532294	0.22ohm+/-5%,1/2W,Metal
R234	441721514	150ohm+/-5%,2W,Metal oxide
	Terminal	
P202,P204	25045647	HSJ1002-01-1020
	Sockets	
JL931A	25051107	NSCT-3P894
P2901B	25052142	NSCT-19P2040
P6830B,P6832B	25051255	NSCT-3P1045
	Radiator	
Q233A	27160145	RAD-51
	Screw	
Q233B	82143010	3P+10FN(BC)

CONNECTOR PC BOARD (NAETC-7273-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Plugs	
P2007A,P2507A	25055712	NPLG-20P668

DISPLAY CIRCUIT PC BOARD (NADIS-7330-1A/1B/1C/1D/1E/1F/1G)

CIRCUIT NO.	PART NO.	DESCRIPTION
	FL tube	
Q7501	212216	16-BT-96GNK
	Remote sensor	
U7201	241335 or	SPS-444-1 or
	241341	SPS-444-1-E1
	ICs	
Q7201	22241682R3	M30624MGA-359FP
Q7502	22241680R2	M66005-0001FP
	Transistors	
Q7202	2216230R2 or	KRA103S or
	2214540R2	RN2403
Q7503	2216175R2 or	KTC3875-GR or
Q7538,Q7539	2213145R2	2SC2712-GR
Q7521-Q7527	2216190R2 or	KRC102S or
Q7529-Q7534	2214470R2	RN1402
Q7546-Q7549	2216190R2 or	KRC102S or
	2214470R2	RN1402
	Diodes	
D7201,D7202	223234R2 or	1SS352 or
D7502	223269R2	1SS355
D7203	224490510R2 or	UDZ5.1B or
	224550510R2	UDZS5.1B
D7501	224490820R2 or	UDZ8.2B or
	224550820R2	UDZS8.2B
D7521-D7527	225375	SML1216C
D7529-D7532	225375	SML1216C
D7533	225290	SEL4110R
D7534	225292D	SEL4310G-D
D7536-D7539	225292D	SEL4310G-D <B>
	225291D	SEL4310D-D <S/G>
	Oscillator	
X7201	3010322	CST16,00MXW0C1,Ceramic
	Coils	
L7201	231237M022R2	NCH-1471
R7201,R7202	230958R1	BK1608LM182-T
	Capacitors	
C7201,C7202	355721019	100uF,6.3V,Elect.
C7203,C7204	375524744	0.47uF+/-5%,50V,Plastic
C7207	355721019	100uF,6.3V,Elect.
C7503	354721019	100uF,6.3V,Elect.
C7506	375524744	0.47uF+/-5%,50V,Plastic
C7510	355783309	3.3uF,50V,Elect.
	Switches	
S7541-S7543	25035699	NPS-111-S662
S7545-S7549	25035699	NPS-111-S662
S7551-S7559	25035699	NPS-111-S662
S7563-S7568	25035699	NPS-111-S662
S7571-S7579	25035699	NPS-111-S662
S7581	25035699	NPS-111-S662

NOTE: <D>:120V model only
<B>:Black model only
<S>:Silver model only
<O>: All models except 120V model
<G>: Golden model only

PRINTED CIRCUIT BOARD-PARTS LIST 10

CIRCUIT NO.	PART NO.	DESCRIPTION
	Sockets	
P7201A	25051877	NSCT-33P1664
P7482A	25051089	NSCT-5P876
P7559A	25051087	NSCT-3P874
	Holder	
Q7501A	27191074A	(FL)

VOLUME PC BOARD (NASW-7331-1A/1B/1C/1D/1E/1F/1G)

CIRCUIT NO.	PART NO.	DESCRIPTION
S7569	25065575	EC16B2425,Rotary encoder
P7559B	25051087	NSCT-3P874,Socket

HEADPHONE TERMINAL PC BOARD (NAETC-7332-1A/1B/1C/1D/1E/1F/1G)

CIRCUIT NO.	PART NO.	DESCRIPTION
P7481	25045514	YKB26-5005,Terminal <D/P>
	25045385	YKB26-5153,Terminal <GT/A/WT/R>
P7482B	25051089	NSCT-5P876,Socket

FRONT VIDEO PC BOARD (NAAF-7227-1N/1O/1R)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminals	
P2508	25051961	NSCT-4P1748 <D/P>
	25051569	NSCT-4P1356 <WT/A/GT/R>
P2510	25045674	NPJ-3PDB472 <D/P>
	25045675	NPJ-3PDB473 <WT/A/GT/R>
	Sockets	
P2506B	2009990575UL	NSAS-10P0784
P3220B	2009990420	NSAS-6P0564

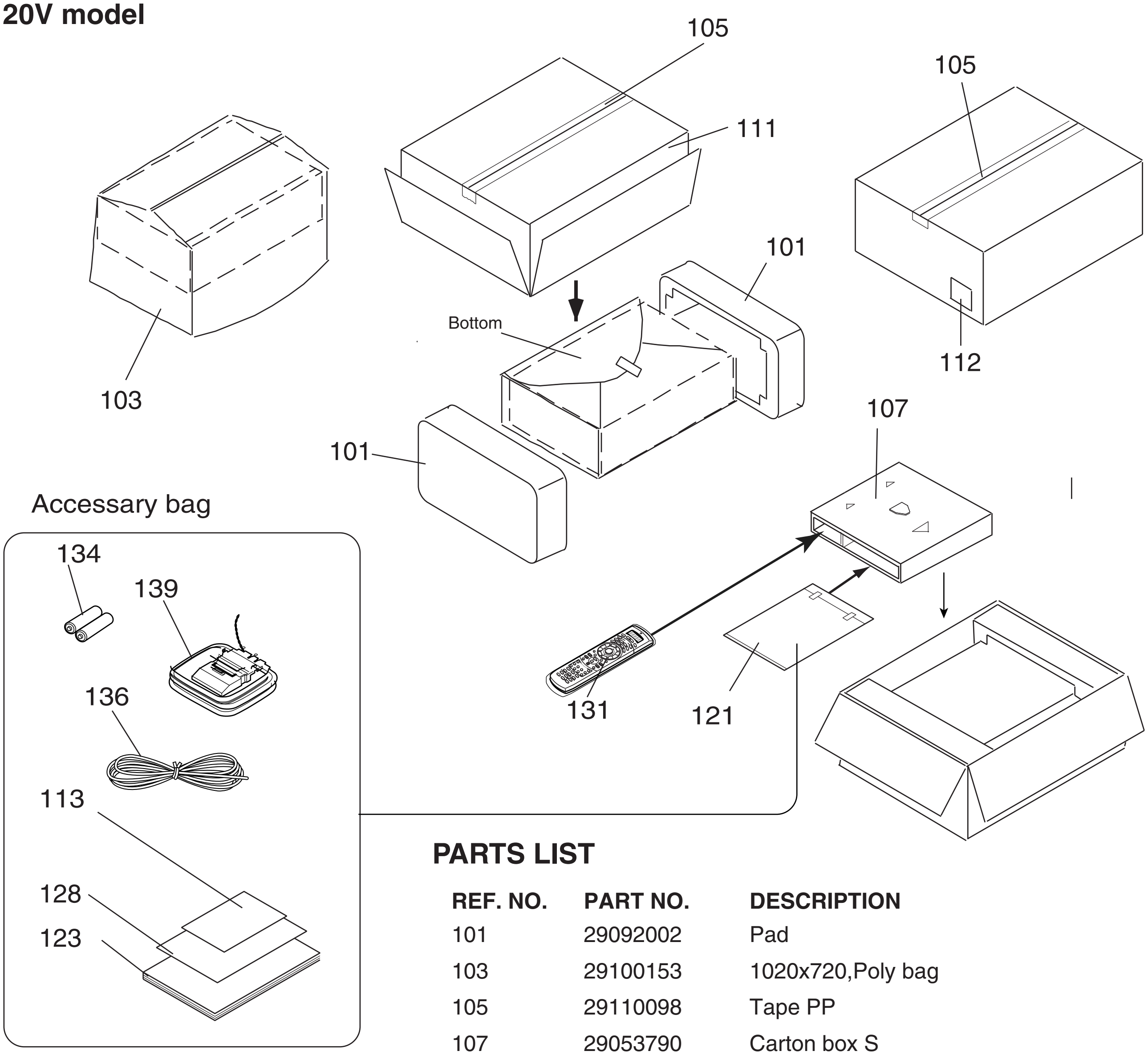
FRONT VIDEO 2 PC BOARD (NADG-7228-1N/1O/1R)

CIRCUIT NO.	PART NO.	DESCRIPTION
U2501	24120095	TORX179,Photo coupler
L2501	231237M022R2	NCH-1471,Coil
C2581	356741009R2	10uF,16V,Elect. Capacitor
P102B	2009990513UL	NSAS-6P0675,Socket

NOTE: <D>:120V model only
<P>:European model only
<WT>:Worldwide model only
<GT> 220V model only
<R> Chinese model only
<A>: Australian model only
<O>: All models except 120V model

PACKING PROCEDURES

120V model

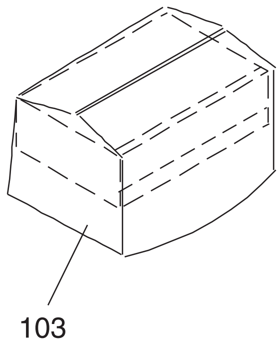


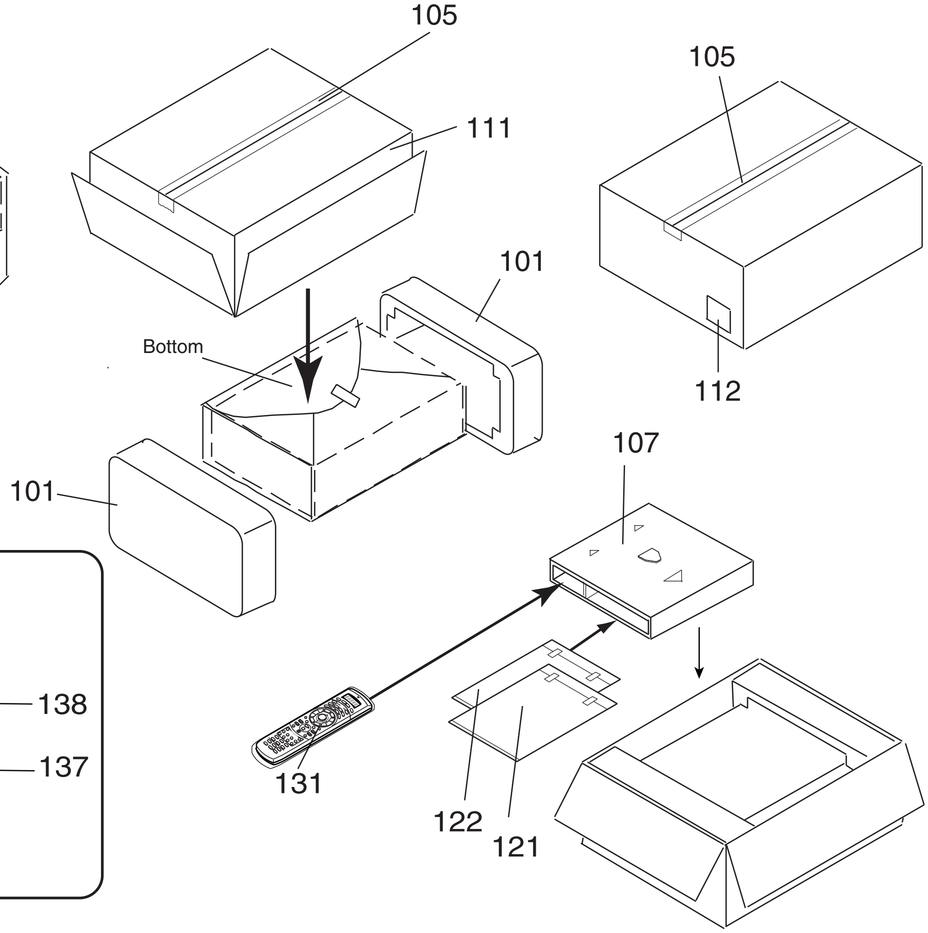
PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
101	29092002	Pad
103	29100153	1020x720,Poly bag
105	29110098	Tape PP
107	29053790	Carton box S
111	29053815A	Carton box
112	29362958A	Label UPC
113	29365090	Warranty card
121	29100097-1A	350*250,Poly bag
123	29343204A	Instruction manual E
128	29343205	Instruction manual E
131	24140460	RC-460M,Remote controller
134	3010054	UM-3,Two batteries
136	292142	FM antenna
139	232140	NMA-3057,AM antenna

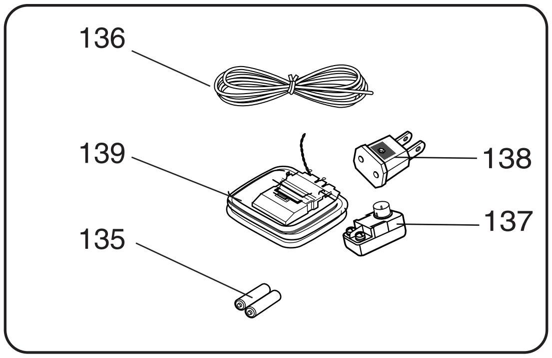
PACKING PROCEDURES

Other models

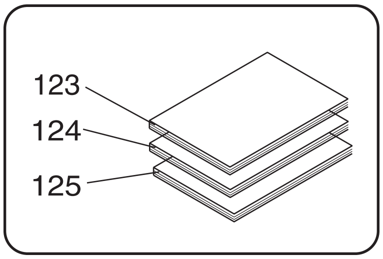




Accessary bag 121



Accessary bag 122



REF. NO.	PART NO.	DESCRIPTION
101	29092002	Pad
103	29100153	1020x720,Poly bag
105	29110098	Tape PP
107	29053790	Carton box S
111	29053816A	Carton box <B><P>
	29053817A	Carton box <B><WT/A>
	29053818A	Carton box <S>
	29053819A	Carton box <G>
112	29362955A	Label EAN <B>
	29362956A	Label EAN <S>
	29362957A	Label EAN <G>
121	29100097-1A	350*250,Poly bag
122	29100097-1A	350*250,Poly bag
123	29343204A	Instruction manual E
124	29343206	Instruction manual FSI <P>
	29343208	Instruction manual CTCS <WT/GT/R>
125	29343207	Instruction manual GDSw <P>
131	24140460	RC-460M,Remote controller
135	3010054	UM-3,Two batteries
136	292115	FM antenna
137	25065462	YAE21-0237,Antenna adapter <WT/A/GT>
138	25056005	CV-K-1,Conversion plug <WT>
139	232140	NMA-3057,AM antenna

NOTE:<B>: Black model only
<S>: Silver model only
<G>: Golden model only
<P>: European model only
<WT>:: Worldwide model only
<GT>: 220V model only
<A>: Australian model only
<R>: Chinese model only

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PN 0M3714   Printed in Japan